Recruitment Process
& Interview Experience

<u>INTERVIEWEE TESTIMONIALS</u>

Placement Season
2019-2020 First Semester

Foreword

Dear Students,

It gives us immense pleasure to present the PU Chronicles for the first semester of 2019-20. The document aims to provide you with information that would help you to make important decisions related to your placements and academics.

This document has been curated by compiling the interview experiences from students who cleared the interview rounds and were placed in the companies that visited campus in 2019-20 Sem 1. This is by no means an exhaustive document enlisting all the students placed or all companies that visited. The information here is from the student's perspective and thus can be very resourceful to students as they gear up for the processes yet to come. We urge you to get in touch with us directly to clarify doubts, and also write to us at pu.bitspilani@gmail.com and/or on the Slack channels in case you notice any glaring errors. We will ensure that a rectification notice is sent at the earliest.

A word of caution. Placements is an extremely volatile area, and changes based on a number of factors such as market conditions, recruiter relationships and business constraints. Please read through the document with the awareness that the trend for a certain year may not be the trend for the next year. Hence, streams that did not do well in a particular year well be the best placed in the following year. The rounds and processes conducted by a company in the previous semester may very well differ this semester.

Hence, prepare hard, be optimistic, and rest assured - the Placement Unit is always there for you!

All the Best,
Placement Team,
Pilani Campus

Table of Contents:

(Click on respective companies/domains to follow)

Domain

Chemical

Sector: Chemical/Mechanical
Name: Ankit Pandey (2016A4PS0847P)
Company: ExxonMobil

Profile: Business Analyst/Sales and Marketing

Recruitment Procedure

- Resume Shortlisting, Online Test, GD, Interview
- Test had 3 sections:
    a. Verbal- Five short passages, three questions on each, the only type of question was to identify if the given statement can be inferred from the passage or not.
    b. Data Interpretation
    c. Quant
    d. Technical

  Calculators not allowed, conducted on CoCubes platform. Duration was 1.5 hours (1 hour for first three, 30 min for technical)
- Test was easy. However, it is important to maintain speed to finish all questions.
- GD: was "Impact of automation and artificial intelligence on industry jobs." 12 min GD, with 30 seconds given to each candidate to summarise.
- Questions: It wasn't very technical. They will try to assess your personality.
    a. Tell us about yourself
    b. Family background
    c. Questions on internships. Be prepared to answer questions on the impact of your projects.
    d. Which role do you think you fit in and why ?
    e. Plans for higher studies. Be prepared with a logical answer to this question.

Sources of Preparation

- Nothing specific as such. Online test is easy and most of the students get through this round. You may try the PU training aptitude tests. For GD, try indiabix.com to get a list of decent topics. For interviews, just stay calm and be yourself.

Courses and Certification

Know your PORs/internships inside out. No specific course or technical proficiency is required.

Other Relevant Information

Stay cool and hydrated. Don't panic. Interview will be easy.

Sector: Chemical
Name: Kamesh Kumar Saini

Company: ExxonMobil

Profile: Sales and Marketing

Recruitment Procedure

1. Resume Shortlisting
2. Online test – 2 parts

    - Aptitude test (Analytical, Logical and Verbal)
    - Core Chemical

    Test was easy. Chemicals questions were mostly from thermodynamics and other theoretical concepts. No formulas required for the test.

    Just maintain a decent speed to complete the aptitude part.

3. Group Discussion
4. Technical + HR Interview

    - General Questions- Tell me about yourself, Why should we hire you, questions on your internships
    - Show your interest in the profile and have a good hobby to talk about

Sources of Preparation

For Aptitude tests, PU- Training site is more than sufficient. For chemical, just read general concepts of heat transfer, fluid mechanics and CET.

Courses and Certification

No courses or certification required.

Other Relevant Information

They are evaluating you for your personality. They are not looking for any experience in sales and marketing through internships or any other way. So, just maintain a positive attitude in the interview.

Sector: Chemical
Name: **Kanav Puri (2016A1PS0541P)**

Company: ExxonMobil

Profile: **Business Development/ Sales Management**

Recruitment Procedure

1. An online test of 1.5 hr: 60 minute aptitude (Quant and Verbal) and 30 min branch specific.(41 selected from 60)

    a. The aptitude round (Quant and Verbal) had easy questions though time management is important.
    b. Branch specific for Chemical had questions from thermodynamics, fluid mechanics etc. Mostly memory based. Few simple calculations at best. (Calculator was allowed during the test)

2. Group Discussion(13 selected from 41)

    a. My GD topic was "How to create opportunities for the ever increasing rural population shifting to cities". Most topics are based on general awareness.

3. Interview(5 selected from 13)

   a. One interview round. Interview is not very technical. They only cover resume points, hence it is important to know your resume inside out. Don't include things you can't substantiate during the interview. Also they asked standard HR questions like strengths and weaknesses, career goals, why ExxonMobil etc.

Sources of Preparation

- Practiced a few tests from PU's aptitude test subscription.
- A list of decent GD topics can be found on indiabix website.

Courses and Certification

No subject as such. Know your work, what you did in POR or Internship. The interview revolves there itself.

Other Relevant Information

Relax and be cool. Don't worry if you don't get into a company, that doesn't mean you stop trying. Keep trying and you will have your day too.

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Domain

Consulting & Analytics

innovate   achieve   lea

Name: Utkarsh Sharma (2018H1490343P)

Company: Accenture

Profile: Business Analyst

Recruitment Procedure:

Round 1: Resume Shortlisting

Round 2: Skills Interview

Questions:

1. Introduce Yourself.
2. Questions on Prior Work Experience.
3. Questions on Position of Responsibilities.
4. Reason why I learnt some of the softwares mentioned on my resume i.e. Tableau and SPSS.
5. What did you do in your summer Internship?

Round 3: Technical Interview

Questions:

1. How is IT affecting supply chains? How Technology is Transforming the Supply Chain?
2. Interviewer explained a case in detail where there is a manufacturing company which faced issues in its supply chain and its product has caused the death of 3-4 customers leading to the arrest of the CEO. Initially it is suspected that there was a mismatch between Designing and Development.
   What will be your approach towards identifying the problem and handling this situation?
3. Where do you see yourself in 2-3 years if you are selected?

Round 4: HR Interview

Questions:

1. Questions like why MBA after B.Tech and why did you leave your job?
2. Why Accenture?
3. What changes has BITS Pilani made in you after you came here?

Sources of Preparation

- Study everything on your resume very thoroughly.
- Study about the company from the website.
- Study about the latest technology trends in IT from various websites.

Courses and Certification

Digital Marketing by Coursera, however no Question was asked in the interview on this.

Other Relevant Information

Carry a smile on your face when you enter the interview room, it will make a positive impact. If you are given a case question, don't answer immediately, ask the interviewer for a minute or two to think and gather your thoughts and then answer. They only check your direction of thinking and approach towards problems. Represent your Institute proudly because your institute has made you capable enough for appearing in the interview.

Name: Gaurav Singla (2018H1490374P)

Company: KPMG Global Services

Profile: Business Associate – Research and Benchmarking

Recruitment Procedure

- Resume Shortlisting, Online Test, Technical Interview, HR
- Test had various sections like:
    a. Verbal- based on a short passage, the only type of question was to identify if the given statement can be inferred from the passage or not.
    b. Data Interpretation
    c. Quant
    d. Situation based
    e. Paragraph Writing
    f. Financial and Management Accounting
- Test was easy. However, it is important to maintain speed to finish all questions. Going back to previous questions is not allowed. For paragraph writing please prepare for the current affairs.

Questions:

a. Tell us about yourself

b. Follow up questions from what you answer

 c. Guesstimates Puzzles - They care more about the thought process and logic rather than the answer. Have a structured approach to solve the problem and don't guess or make assumptions. Ask for clarifying information if necessary.

Solving the puzzle/having a logical approach to it is very important for the selection.

Sources of Preparation

Search for generic puzzles; also, study case in point for guesstimates and case based questions. Make a habit to go through the business newspaper daily.

Courses and Certification

No subject as such. Questions were asked from the academic projects mentioned in the resume.

Other Relevant Information

Most job interviews and not just axis bank are FIT based rather than SKILL based. You need to be able to convince the recruiter why you wish to join that particular organization and not work in some other sector.

To answer this, apart from preparing about that one company, you need to know of other job opportunities specific to your profile and then justify why this job among all the choices you have.

Name: Harshoman Sinha (2016A2PS0830P)

Company: Oliver Wyman

Profile: Consulting Intern

Recruitment Procedure

1. Resume Shortlisting –
   - Oliver Wyman went to 3 colleges in 2019 – IITD , SRCC,BITS Pilani - and shortlisted just 30 students for interviews out of 350+ applications (only 2 from BITS last year), so it is essential to spend a lot of time refining your resume
   - It helps to have your resume vetted by seniors currently working in top consulting firms, before sending it across
   - All Interviews: Case + Fit

2. Interview 1
   - Interviewer was a senior consultant (2+ years at the firm)
   - Case on Profitability - Major credit card company has been experiencing reduced profitability for 6 months. What's going on and what can the client do to reverse fortunes?

3. Interview 2

   - Interviewer was an Associate (4+ years at the firm)
   - Case on Profitability and Growth : Client is a major postal service that is looking to cut down costs in the short term, while simultaneously planning a long term strategy to sustain growth rate.

4. Interview 3
   - Partner round
   - More emphasis on culture fit
   - Guesstimate: Estimate the amount of gold purchased annually in India

Sources of Preparation

- Books : Case in Point (Marc Cosentino), Case Interview Secrets (Victor Cheng), Case Interviews Cracked (Garg and Keshikar)
- Videos: Victor Cheng's series, CIC workshop videos
- IIM Ahmedabad casebook for unconventional cases

Other Relevant Information

- Sufficient case practice is important for the interviews - Oliver Wyman only recruits 1 or 2 interns every year nationally, so one bad case interview can be a deal breaker

Name: Gaurav Agrawal (2016A1PS0486P)

Company: ZS Associates

Profile: Decision Analyst Associate

Recruitment Procedure

1. Online Test: The training material provided by PU will be more than sufficient. Try to give as many mock tests as you can because speed is very important. Also avoid using calculators during the mocks.

2. Machine Interview:
   It is advisable to prepare answers for basic HR questions like strengths & weaknesses, situations where you displayed leadership qualities, etc.

3. Interview: There were 3 rounds of interview which were conducted in their Gurgaon office:
   - Case Study interview:
     A 12-page case study was given and the time allotted was 30 min. There was a lot of data given in the form of tables and charts. The calculations were a bit lengthy considering the time limit. There were 5 questions, so it is important not to be stuck in a question and give all of them a try.

   - Evidence Based interview:
     Some puzzles and guesstimates were asked in this round. I was asked to estimate the number of Coca Cola bottles sold in Delhi NCR in a day. The final answer is not as imp as the logic behind that answer.

   - Fit Interview: Again being prepared with the basic HR questions will be sufficient for this round.

Sources of Preparation

Case in Point, Case Interview Cracked & Day 1.0

Courses and Certification

Any projects in machine learning/Deep learning will certainly be a huge plus. But you must be thorough with it as it could be discussed in detail.

Other Relevant Information

Most job interviews are FIT based rather than SKILL based. You need to be able to convince the recruiter why you wish to join Consulting and why ZS in particular.

Domain

ET

Sector: ET
Name: Abhishek S.B (2016A3PS0147P)
Company: **Analog Devices**

Recruitment Procedure:

- Two rounds – Test**,** Interview (Technical and HR)
- The first round was a **written** test. It had 2 sections – Technical and Aptitude. Technical part had questions from Digital design, Static Timing Analysis and one question from Signals and systems, (Question on LTI systems). The Aptitude/Mental Abilities section was easy.
- Interview was taken by 3 people, one at a time (2 – Technical, 1 – HR).

1st interview – Was asked to explain setup, hold time and meaning of them being positive/negative/zero. Also asked me questions from DSP. Asked me to identify the type of filter (FIR/IIR) from the transfer function, asked for its realization and Verilog code for the realization.

2nd interview – Was asked one/two puzzle questions like identifying total number of triangles from a given figure. Then asked me many questions from Digital Design like reducing a Boolean equation under some conditions, implementing N-input Nand gate using 2-input nand gates. Also, they had the scanned copies of our answer sheets from round one. Asked me two questions where I had made a mistake/ left unattended.

3rd interview – (HR interview) - Was asked to introduce myself, asked about my hobbies, my immediate and long-term goals, interest in higher studies, and why I would like to work at Analog Devices. Was also asked to explain my summer project in IISc.

Sources of Preparation:

- Digital Design - "Digital Design: With an Introduction to Verilog HDL ", Morris,   Mano
- Digital VLSI design – "Cmos digital integrated circuits ", Mo -Kang
- Verilog – "Verilog HDL", Samir Palnitkar
- Static timing analysis - http://www.vlsi-expert.com/2011/03/static-timing-analysis-   sta-basic-timing.html

- Gate Video lectures can be useful to understand setup, hold time, working and   analysis of latches, flip-flops etc

Courses and Certification

- Among CDCs DD, ADVD are very important.
- Electives – DSP and Computer Architecture are also very helpful. (Not sure if I was asked DSP – related questions because I had put it on my resume, or if everyone was asked).
- SAS might be needed in some companies.

I had done no relevant external courses or certifications.

Other Relevant Information:

   The interviewers were very friendly and helpful. Although I got wrong answers   sometimes, they   guided   me towards getting the right answer. Explain your   thought process and how you reach the answers.
   Also, when there is a written test, there is a good chance that your paper will be   discussed in the   subsequent rounds. Prepare for questions/concepts which you   got wrong/ didn't know during the written test.

Sector: ET

Name: ANAMIKA AJITH (2018H1230246P)
Company: INTEL INDIA
Profile: HARDWARE ENGINEER(SOC/IP)

Recruitment Procedure

Resume shortlisting, technical interview, HR interview

For technical interview, I was asked questions from digital electronics, STA and regarding a few of my projects. I was also asked some questions on vlsi design like clock domain crossing and synchronisers, cmos inverters etc. I was also asked some basic Verilog questions and about implementing FSM. Interview went on for about half an hour.

The HR interview was very informal and was hardly 5 minutes long. I was asked about my area of interest and usual questions like "why intel?"etc.

Sources of Preparation

STA from vlsi expert

Physical design from NPTEL IIT Kharagpur lectures

Digital from GATE notes, morris mano and/or anand kumar

Vlsi design from rabaey/class notes

Vlsi architecture from Patterson/class notes

Other Relevant Information

Prepare STA extremely well. It is vital for any interview for a hardware profile. Be confident with Verilog basics as well. Revise digital electronics

well. It is extremely important. Be thorough with the basics like latches, flipflops, counters etc. Prepare the projects in your resume well.

Knowledge on ASIC flow will be sufficient , though a fair knowledge on physical design is always good. Basics of vlsi design and vlsi architecture is sufficient. Basics of MOS device physics and IC fabrication may also be useful. But as I said, stress mostly on STA ,Digital and Verilog.

Sector: ET
Name: Ashutosh Tripathi (2018H1230258P)
Company: Intel India

Profile: Hardware Engineer

Recruitment Procedure:

- Resume Shortlisting, Technical round, HR round
- Resumes were shortlisted based on CGPA. They asked for 70% in Masters, 60% in bachelors and 70% in +2.
- Technical interview was mostly based on VLSI Design course. Static timing analysis was asked from everyone. Command on digital design is extremely important. You should be thorough in your mentioned projects. Don't go into the interview with a resume that has a project that you are not sure about. Concepts of CAD namely floor planning, placement and routing are important as well. You should know the basic concepts. Interviewer didn't ask about any specific algorithm. General understanding of courses that are not directly involved with your job profile is also important if you mention them in your resume. Example: Don't mention IC fabrication technology if you cannot explain the basics of lithography. Overview of important concepts of every subject (that is mentioned in your resume) is required.
- HR interview: very relaxed interview. Lasts may be 5 minutes tops. Was just asked about how my interview(technical) was, what is my area of interest in the design flow, why do I want to join Intel. She asked me if I had some questions for her. I asked about the company work culture, etc.

Sources of Preparation
- Digital Design: Morris Mano, GATE questions available online
- VLSI Design: Lecture notes from VLSI design course and video lectures.
- http://www.vlsi-expert.com/
- CAD: Lecture notes from Prof. Asati's lectures, NPTEL videos by Prof. Indranil Sengupta
  "https://www.youtube.com/playlist?list=PLzBynYJnzI5kA05fRGrVlen5WSu12amj3"
- Textbooks of mentioned courses in the resume (for general conceptual overview)

Other Relevant Information

- Be vocal in your interviews. Talk the interviewer through your thought process. It creates a discussion and the interviewer may just guide you in the right direction when you are moving away from the answer.
- Start your preparation as soon as you reach home. It will also help you prepare for other company profiles as well since you will have a lot of time.
- Knowing Python, Perl will make your resume stand out but don't start learning it in the 2 months before your placements start. If you know the language, make sure you mention it in the resume and be prepared to answer questions about it if you mention it. If you don't know these languages, don't worry because you will anyway learn them on job if required by your profile.

Sector: ET
Name: DHRUV ASHWIN MEHTA (2018H1230229P)
Company: Intel

Profile: Hardware Engineer

Recruitment Procedure

Resume Shortlisting , 2 Technical Rounds and One HR Round

- **Technical1**-I was asked to introduce myself and was asked about VLSI Design flow and to explain each part of the VLSI Design Flow process. He asked me about which part of the design process was I interested in Front end or back end and why? Then he asked me about Static Timing Analysis basics like setup time , hold time, metastability and slack. He also asked me about my CAD for IC Design project on RTL Compiler and SoC Encounter.He asked me whether I had done low power design RTL Coding.
- **Technical2**- I was asked to detect the positive edge of data if I have clock and data as input. Few basic questions like how do you make a full adder .Implement full adder using 2:1Mux.Then, he asked me about clock domain crossing and Asynchronous FIFO as well as Synchronizers. He also asked me how I will reduce switching activity of a function for reducing dynamic power consumption.He also asked me to write verilog code for asynchronous reset D flip flop.
- **HR**- She just asked me basic questions like introducing yourself and how was my experience of interview during technical rounds and in which domain do I want to be RTL Design,Verification aur Physical Design.Whether I have any questions to ask?

Sources of Preparation

- **Aptitude:** Prepare from Arun Sharma just the solved questions and level 1 questions. Also, you can practice from www.indiabix .com

- **C programming:** Do just basics from geeksforgeeks.com important topics like storage classes, arrays, functions and pointers.

- **Digital VLSI Design:** Prepare Digital Design basics of GATE level thoroughly. There is a document named DIGI_QS_FULL.pdf doing all chapters from that thoroughly. Also, Sequential part of digital design must be done from Morris Mano and important topics like register,counters,FSM concepts should be clear.VLSI Design concepts must be prepared from Rabaey like basics of CMOS Inverter,Timing analysis (STA).For STA,vlsiexpert.com is a good resource.For VLSI Architecture,RISC and CISC basics and memory organization like cache,virtual memory should be known and can be done from lecture slides or different online resources.VLSI Design flow and Clock tree synthesis must be done from first 6 videos of Physical design lectures of NPTEL .

- **Verilog:** Do verilog very thoroughly from Samir Palnitkar and online sites like asicworld.com and http://referencedesigner.com. EspeciallyFSM,D flip flop with asynchronous and synchronous set and reset,sequence detector,etc like questions.

- **Analog:** Basics of RC circuits can be done from Nagendra Krishnapura lectures of NPTEL. Also, one must prepare for GATE level Analog questions that are asked in the written test. If someone is preparing for an analog profile,he must do important chapters from Razavi like

Amplifier design basics,OP AMP,Current Mirror,Frequency Response of Amplifiers ,BandGap reference circuits and Stability and Compensation.

Courses and Certification

Important courses: VLSI Design, VLSI Architecture, CAD for IC design, Analog IC design

Other Relevant Information

- Be thorough with your projects and one should know in and out about their project
- Be confident while expressing your ideas
- Stay very calm during written exams. They are a really important part of the selection process .

Sector: ET
Name: G ANUSHA (2018H1230228P)
Company: Intel

Profile: Hardware Engineer (Soc)

Recruitment Procedure :

1.   Resume Shortlisting (> 7 CGPA)
2.   Technical Interview :

i. Advantages of RISC over CISC (Interviewer expected the motto behind taking up RISC project)
ii. Questions on projects done in Research practice (RP).
iii. Asked to draw the output of a series RC network for a given input.
iv. STA : violation of setup and hold times and how to rectify them, choosing the clock frequency and clock skew related questions.
v. Basic digital questions : different types of counters and their differences (in terms of complexity, speed)
vi. Asked to design a synchronous counter (was to test the approach and procedure).

3.   HR : Why Intel ? Which domain I would want to work in , at Intel.

Sources of Preparation:

1.   Previous year Gate questions of Digital, Analog and Aptitude. For aptitude and C, IndiaBix can be referred.

2.   Know each and every detail of all the projects presented in the resume. Think of all the possible questions about your project and the related areas and prepare accordingly.

3.   VLSI Design : Kang, Rabaey and Gurunarayan Sir's lectures.

4.   Verilog : Basics from Palnitkar book and Nptel lectures. Also cover the synthesis part and practice a few examples .

5.   STA and Timing Analysis : This portion can be studied from vlsi expert blog and is the most important part of every interview. Solve Relevant problems to understand it thoroughly.

6. Other topics : CDC, Synchronizers, pipelined architecture, hazards and stalling.

7. Analog : Different amplifier configurations (CS,CD & CG), Op-amps, frequency response.

Courses and Certification

VLSI Design, VLSI Architecture , CAD for IC design, AICD.

Other Relevant Information

▪ Have a good hold on STA concepts ,Verilog (both design and synthesis).

▪ Answer the questions confidently. Some questions may need more thinking, go ahead and tell them every step of your approach and you will eventually reach the correct answer through some hints.

Table of Contents

Sector: ET
Name : ZamanNishat(2018H1030126P)
Company: Intel

Profile: Software Engineer

Recruitment Procedure

- Resume Shortlisting, Technical Round, HR
- Resume Shortlisting was done based on the cgpa(>7)
- Technical Round Questions:
    a. Describe the Manet project (which I had mentioned in my resume)
    b. Follow up questions on the project
    c. Lots of questions on basic concepts of O.S and C.N
    d. Write a program to reverse a string
    e. Write a program to find point of intersection of 2 linked list
    f. Pattern searching based question on strings
- **HR round**

1. Describe any non-technical challenge you faced and how you overcame that
2. Just asked about my field of interest

Sources of Preparation

- Geeksforgeeks must do interview questions, gfg dsa and sudo placement courses
- Gate notes

Sector: ET
Name: Rajat Porwal (2018H1230249P)

Company: Intel

Profile: Hardware Engineer

Recruitment Procedure

Interviews were based on Resume Shortlisting. I had one Technical Interview (approx. 30 min) followed by a HR Interview.

- Interviewer asked me to briefly describe all the projects listed in my resume and then asked me to explain my CAD project in detail. Then, he asked me questions on Mealy and Moore FSM and which one is better of the two. Questions on Setup and Hold time constraint(STA) were asked along with local and global skew and clock domain crossing. He also asked about the methods to reduce dynamic power in a circuit. He then gave a scenario like "If a FSM with minimum possible states is given to you, what can you do to reduce the dynamic power of that FSM".
- Some questions were asked on Verilog like blocking and non blocking assignments and structure of Verilog code and how to write Test Benches in Verilog.
- I was also asked to draw the Sum and Carry expression of Half Adder using MUX and designing of 1 bit Full Adder using Half Adders. Then he asked me about what is Metastability in sequential circuits and what are its causes. He also asked me to explain ASIC Design flow and the difference between Flip Flops and Latches and which one is better of the two.
- In an HR interview, I was asked my preferable domain and Why to Join Intel. Also about my last job and why I left that. It was around 5-10 minutes.

Sources of Preparation

- VLSI Design from Kang, Rabaey and class ppts.
- VLSI Architecture from class ppts.
- Low Power VLSI Design and Physical Design Basics lecture videos by Prof. Indranil Sen Gupta (NPTEL).
- Verilog from Samir Palnitkar and NPTELvideos.
- Digital Electronics of GATE level.

Courses and Certification

VLSI Design, VLSI Architecture, CAD for IC Design, Verilog and Digital Electronics.

Other Relevant Information

Be thorough with your projects and also, go through some basic Analog IC Design concepts as well. It is not compulsory to answer each and every question in an interview but try keeping all the projects done here during M.E. in your resume (it will reflect your flexibility to work in different domains), B.E. projects are not necessary.

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Sector: ET
Name: Sahil Jakhar (2018H1230232P)
Company: Intel

Profile: SoC Engineer

Recruitment Procedure

- Resume shortlisting > Technical interview > HR.
- Technical interview was mainly oriented towards Digital aspects of Electronics along with hints of Analog electronics.
- Technical Interview questions:

   a) Introduce yourself. (please show intent of what profile you are inclined towards. Prepare to answer this question wisely)
   b) Thoroughly explain your Research project. (As it was based on Sigma delta modulator ADCs which is currently prevalent in the industries)
   c) Basic questions on Static Timing Analysis. (Setup time and hold time, which is more important in terms of designing aspects? How to overcome setup and hold time violation?)
   d) Briefly explain the VLSI design flow.
   e) Concept of DVFS. (What is it? Where is it used?)
   f) Concept of overvolting and undervolting.
   g) The interviewer asked to compare the latest Intel flagship chip and recently launched AMD chip in terms of architecture, technology node, power management etc. (Please do read about various ongoing technology advancements in the company along with its rival companies. Knowledge about latest technology helped me a lot to impress the interviewer that I am currently aware of and in sync with what is being worked on in the industry)
   h) What is an RC compiler? What are its input files? What output files does it generate?
   i) Same question with the SOC Encounter was followed.
   j) Tell me What does overclocking the processor mean? Is it safe? What are the measures to take care when overclocking a CPU?
   k) Explain the components of power dissipation in an Inverter. Draw the inverter structure and characteristics.

l) What if we overclock a processor for a longer period of time? What are the consequences on its life cycle as well as the internal structure? Tell an answer also based on the IC Fabrication standpoint.

- Please don't be nervous or hesitant in answering questions. If you think your answer is suitable, then tell it to the interviewer. They generally look for your approach towards the problem rather than actually solving it. (But you must be crystal clear with your concepts).
- HR interview was just a sort of interaction session. Asking about my hobbies and Why I wish to join Intel only as there are many other similar companies?
- There is no specific preparation required for HR interview as such.

Sources of Preparation

- Digital design from Rabaey, CMOS Digital integrated circuits from Kang, STA from vlsiexpert.com and FAQs on STA. VLSI architecture- Follow Patterson book.

Courses and Certification

VLSI DESIGN, CAD FOR IC, IC FABRICATION, VLSI ARCHITECTURE

Other Relevant Information

Please thoroughly go through each and every point in your resume. Projects need to be at your fingertips. Don't include anything that you are not comfortable with in the projects section. Read Kang and Prepare FAQs from various websites on Verilog and VLSI Design.

Sector: ET

Name: Shivam Kaushik (2018H1230241P)

Company: Intel

Profile: Hardware Engineer(SoC/IP)

Recruitment Procedure

• Resume Shortlisting, Technical
Interview,HR

• Keep your resume short and brief and mention only those projects which you are very
much confident about.(VLSI Architecture,VLSI Design,CAD for IC Design can't be excluded)

• Questions:

a. Tell us about yourself b. Follow up questions from what you answer c. Give a brief
overview of projects you have done d. What is skew,benefits of positive skew,jitter e.
FPGA vs ASIC f. ASIC Design flow g. Mealy and Moore machine which is better and
why h. I had mentioned one workshop and internship relevant to job profile in my
resume and I was asked questions based on those Sources of Preparation .'C' from
"Let us C" and Geeksforgeeks.com,Rabaey for CMOS Digital Design, Topics like
Static Timing Analysis from vlsiexpert.com,

Courses and Certification

Computer Architecture,VLSI Design,VLSI Architecture,CAD for IC Design,Analog IC
Design

Other Relevant Information
Be thorough with your projects.Understand STA through eye diagram.

Sector: ET

Name: Vishal Singh Mandloi (2018H1230244P)
Company: Intel
Profile: Hardware Engineer

Recruitment Procedure

- Resume based shortlisting
- 1 Technical and 1 HR interview (I had 2 Technical + 1 HR interview)

- Technical round

  - Introduce yourself and briefly describe your projects. Follow-up questions on them.

  - Explain physical design flow, clock tree synthesis, RISC vs CISC (most of my first technical interview lasted on these topics only).

  - What is clock gating and why do we use it, make circuits for clock gating.

  - Questions on STA, +ve/-ve clock skew, their effects on setup and hold time, jitter, positive and negative edge detection circuits.

  - Interviewer gave me a piece of code and asked whether branch prediction would help or not. Questions on loop unrolling, wire delay, Elmore delay, mealy and moore machines, when to prefer mealy and when to prefer moore, questions on Synchronous and Asynchronous reset. A few questions on DRC, LVS were also asked.

  - Module instantiation in Verilog, Component instantiation in VHDL.

  - Questions were asked on the competitions that I had mentioned in my resume.
- HR round was short and easy. Questions like Preferred area of work, why Intel? were asked.

Sources of Preparation
- Digital Integrated Circuits by Jan M. Rabaey.
- Computer Architecture - A Quantitative Approach by Hennessy, Patterson.
- CMOS DIGITAL INTEGRATED CIRCUITS ANALYSIS & DESIGN by SUNG-MO KANG.
- geeksforgeeks.org for C programming.
- VLSI Physical Design - NPTEL.
- Previous year GATE questions.

Courses and Certification

VLSI Design, VLSI Architectures, Analog IC Design, CAD for IC design

Other Relevant Information

Most of the companies(ET) ask C programming in their written test so make sure you cover that as well. Questions were frequent from topics such as pointers, arrays, recursive functions, increment-decrement operators.

Basics of Cache memory, microprocessors is a plus.

Sector: ET
Name: ABHAS SINGH (2018h1230238P)
Company: Micron Technology

Profile: Digital Design, Verification, Physical Design

Recruitment Procedure:

1. First stage was an online written test consisting of aptitude, digital electronics and programming. No negative marks. Questions were very easy. If one doesn't know much about programming it won't make any difference.
2. Second stage was the technical interview.

   - Basic Verilog questions were asked. I was asked the difference between blocking and non blocking statements with respect to actual hardware.
   - Rest of the interview went on based on the project I did in my Research Proposal. It was very detailed. Since it was implemented using Verilog this part covered Verilog questions also.
   - Some basic questions on Physical design like the VLSI design flow, what is floor planning etc.
   - There was no HR round for me.

Source of preparation:

1. Digital electronics in the GATE syllabus.
2. Samir Planitkar for Verilog.
3. "VLSI Expert" for studying Static Timing analysis.
4. VLSI Design – Notes and Lectures of Gurunarayan sir.
5. For Physical design videos by Dr. Indranil Sengupta on NPTEL.

Other Relevant Information:

The interview was not hard as such. Preparation for the projects should be very very thorough. Don't try to mislead the interviewer in any way. If you don't know the exact answer at least try to approach the problem and think out loud so that the interviewer gets to understand your approach. Be calm and patient. The people taking the interview will give you hints in case you get stuck somewhere.

Sector: ET
Name: Mohith T S (2016A3PS0213P)
Company: Micron Technology

Profile: Design Verification Engineer

Recruitment Procedure:

- **Online test:** It had 3 sections: Digital, Aptitude and Programming. Questions from the digital section were mainly based on State diagrams, Minimum delay path, Logic gates implementation, CMOS implementation and Combinational circuits. Digital section consisted of 16 questions and 30min time. All the questions were similar to questions present in GATE question bank. Aptitude section consisted of 20 questions and the time limit was 15min. It was straight forward. Practicing the Placement unit question bank for aptitude will be more than sufficient. Programming section had 13 questions and the time limit was 20min. Questions were mainly based on basics of C-programming and Python. Knowledge of Computer Programming is sufficient to sail through this section.
- **Technical interview:** The interview was on Skype. He asked my favourite subjects. Based on that he started asking questions. My answer was DD and ADVD, so he started with basic questions like the difference between Mealy and Moore machines; asked me to implement a finite state machine by giving its state table; Definitions of Setup time and Hold time followed by a question to find out the maximum frequency at which the circuit can operate. (That circuit was from the digital part of the online test but the question asked there was different). Then he asked me the CMOS implementation of inverter gate, then interchanged the positions of N-MOS and P-MOS in the same circuit and asked to plot the transfer characteristic of the circuit, which was quite tricky. Interview lasted for around 30-40min. For me no questions were asked on my projects. The interviewer was very nice and supportive, just keep explaining your thought process to them so that they can give you the hint according to your approach.

- **HR interview:** The interviewer asked me about my hobbies and favourite subjects. He asked why my cgpa is on the lower side (My cg was below 8).To which i answered him honestly and explained to him the consequences it had on me after 1st year (I didn't perform well in my 1st year because of which it was low). Then he asked me about my other areas of interest and MS plans.

- **Sources of Preparation:** For Digital Design- Morris Mano , Geeksforgeeks and video lectures of NESO academy (every topic upto ASM is important), for digital part of ADVD Rabaey and Kang both are good. For Static Timing Analysis- www.vlsiexpert.com and Rabaey is sufficient.For Analog Electronics- Razavi and L K maheshwari. For C-programming Geeksforgeeks. For practicing MCQ questions, the GATE Electronics and Communication Engineering book by Trishna series is very good. For aptitude placement unit material is more than sufficient.

- **Other Relevant Information:** If you have put Computer architecture on your resume then there is a good chance that your whole interview may go on that. Make sure you prepare Comp arch thoroughly if you have put it on your resume. Verilog is very important. Learn to analyse circuits intuitively (for TI Analog interview it's very much needed). Be calm and honest with the interviewer.

Sector: ET
Name: R Niranjan (2016A3PS0236P)
Company: Micron Technology

Profile: Design Engineer

Recruitment Procedure

1. **Online Test** - The online test had 3 sections: Digital, Coding basics and Aptitude. The digital section tested the basic concepts in Digital Design and ADVD such as questions on logic gates, MOS based logic implementation, truth tables etc. This section had 20 questions which had to be completed in 30 minutes. The coding section consisted of questions in which the output was to be found out given a particular code snippet. This section shouldn't be a problem if one is thorough with the concepts taught in C programming. This section had 15 questions and the time provided was 20 minutes. The aptitude section had another 15 questions for which 20 minutes were provided. Each section could be attempted 2 times (not necessary though).

2. **Technical Interview** – The interview tested fundamentals in Digital Design and ADVD. The key here is to understand the concept of delays in logic circuits and come up with the output accordingly. Basic questions on inverter design using MOSFETs were also asked. The interview also had some HR questions. The interviewer also asked about some of the projects present in my resume. Then another interviewer walked in and tested my programming knowledge. This part of the interview had questions based on OOP concepts such as encapsulation, abstraction etc. and also had questions based on classes, structures, functions, passing by reference (different ways in which this can be done), pointers and some basic algorithms.

Sources of Preparation – Lecture slides for the below mentioned courses. STA is a very important concept and can be learnt from online sources.

Courses and Certification – DD, ADVD, Computer Programming

Other Relevant Information – The company offered 4-5 different job profiles and therefore, clarity on which job profile suits you the most is important.

Sector: ET
Name: Saurabh P Jain (2016A8PS0316P)
Company: Micron Technologies

Profile: ASIC Design Engineer

Recruitment Procedure :

- Online Test : The test had 3 sections :

a) Digital section : 16 MCQ questions in 30 minutes.

Most questions were from digital design, mainly topics like multiplexers, counters, shift registers, state tables. There were one or two questions on the CMOS implementation of a given Boolean function(Digital VLSI Design). Surprisingly, there were no questions from STA analysis (which would be 100% expected in any test). All of these questions were easy.

b) Aptitude section : 20 MCQ questions in 15 minutes.

Questions were really simple and solving a few exercises given by PU on their practice portal is more than enough for aptitude. Speed and accuracy is key.

c) Programming section : 13 MCQ questions in 20 minutes.

For this section, knowledge of CP was sufficient. Mainly, questions targeted syntax, data structures like queues and pointers. There were a few questions on PERL, etc which I had no idea about, but were easy enough to figure out on the spot. I would say difficulty was moderate since programming is not my forte.

Among all the tests I have written, I (and most others) would say that this was by far the easiest. Hence a very good score was required to get shortlisted for the interview round. 21 people were shortlisted.

- Interview Round : The interviewers were in the BITS Hyderabad campus and so the interview was held through video conference. Also, some people had 2 to 3 rounds while some had only 1. I had 1 interview. The details are as follows:

It was a one on one interview and I was asked to give a short introduction. Remember that questions are likely to come from what you list in the 'subjects/electives' section of your resume. DO NOT put courses you aren't sure of. This would do more harm than good. In this interview, I was asked only 1 or 2 questions about my projects and then the interview was mainly based on the very basics of DD and ADVD. They include :

1) Draw the symbol for D-latch and write the table for it. Now draw the internal gate design of D-latch and explain how it works.
2) Write the verilog module for the above D-latch.
3) What is a flip flop and how is it different from a latch.
4) Draw gate structure of FF and explain how it works.
5) Write verilog code for D-FF.
6) Explain in detail the difference between blocking and non-blocking assignments.
7) Implement an XOR gate from 2 input NAND gates and explain how it works.
8) Implement NAND gate using 2:1 MUX.
9) Draw the CMOS Inverter. Now what would happen if we interchange the positions of NMOS and PMOS? Draw characteristics.
10) Explain difference between mealy and moore machine. What are their advantages over each other?

As you can see the questions cover the very basics of DD, ADVD and some uE. Your ability to draw and explain your answer is crucial. Then the interviewer asked me what my plans for higher studies were. That was the end of my interview.

Sources of Preparation

- Morris Mano is pretty much the best book for DD preparation. Know everything till ASM.
- Kang and class notes are very good for ADVD.
- DEFINITELY do STA analysis from VLSI Expert website. This is extremely important.
- Razavi should be good for basics of uE
- I had done verilog in computer architecture. Samir Palnitkar would be the best source for verilog. If you haven't done comparch and are looking to learn the basics of verilog, then start with morris mano.

Courses and Certification

- CDCs : DD, uE, ADVD
- Electives : Embedded Systems Design, Computer Architecture, DSP, OS OOP. For this interview, only comparch(verilog) was important.
- No external certification.

Sector: ET
Name: Trapti Jain (2018H1240115P)
Company: Micron Technology

Profile: ASIC Design Engineer

Recruitment Procedure: There were only 2 rounds for me-

1. Online Test

- Test had 3 sections:
    a. Digital Electronics
    b. Aptitude
    c.   Coding- output & error related questions.
- Test was easy. No negative marking. However, only 20%of the students got shortlisted for the interview. So, it is important to attempt all the questions. Also we could retake the test within a given time (max 2 times).

2. Technical Interview:

   a. It started from RP which was purely based on Wireless Communication. So, one has to be clear from the basics to the practical implementation of the project.
   b. Follow up questions from what you answer

   Digital electronics questions including-

   c. **STA** problem
   d. D flip-flop using NAND gates
   e. Differences between Latches and flip-flops.

   Basic Data structures-

   f. Single and Double Linked list, their differences and how to append node in them.
   g. Different sorting techniques and their time complexities.

Sources of Preparation

- VLSI - lectures of Gurunarayan Sir
- **STA problems from VLSI Expert**
- Digital Electronics- Gate notes are enough.
- Data structures- Online Video lectures (Srinivas Sir)
- C- Let Us C and Geek for Geeks.
- Wireless Communication- Andrea Goldsmith and online video lectures

Courses and Certification

VLSI design

Sector: ET

Name: Vignesh Nagarajan (2016A8PS0264P)
Company: Micron Semiconductor Inc.
Profile: Design and Verification Engineer

Recruitment Procedure

→ *Recruitment Test*

- Test had 3 sections, programming, logical reasoning and Digital Design
  - Programming questions were mainly based on loops, data-types, scope of variables,functions and code compilation . Not all questions were in C. There were also questions in Perl and Python. Some guess work got me through the Perl and Python questions, it's easy when there's 4 options to choose from.
  - Logical reasoning was really easy. There were a few comprehension based questions, some pattern based questions etc. Shouldn't be a problem after 4 years of college.
  - Digital Design was fairly easy as well. There were mostly straight up logic-minimization, SOP to POS conversion questions. There were also a few sequential circuits based questions such as count sequence prediction. Morris and Mano should suffice.
- Sections were timed differently , I believe the breakup for time was Digital Design > Programming > Logical Reasoning and the number of questions in each section also followed the same order.

→ Interview

- I believe my interview was a rather weird encounter-
  - I was the first to be called and was told that my internship last summer piqued the interviewer's interest. I spent the next 20 minutes explaining in detail all of my work and the experience I gained through it. I was then asked the question of what my interests were, to which I very honestly replied that it lies mainly in the domain of Analog and Mixed-Signal IC Design(which a lot might think was suicide because the profile being offered was Digital). The interviewer then asked me 3 inverter design based questions which I answered, with a little help from the interviewer. I was then briefed on the profile being offered and what

the work would be like. Through this discussion, the interviewer and I reached this consensus that despite me having put forth my interests as being wildly different from what was on offer, I only had to benefit from the work I would be doing as a Verification Engineer because I'd have the opportunity to achieve a very rich balance of different domains.

Sources of Preparation -

-- Network Analysis - Valkenburg
--- Sedra Smith-Microelectronic circuits

--- Morris & Mano -- Digital Design

Courses and Certification

- Electives - Embedded System Design, Digital Signal Processing, Modelling of Field Effect Devices, Computer Architecture, Project on Analog Circuit Design(Operational Transconductance Amplifier Design).

Sector: ET

Name: NIKHIL HOSUR (2018H1230230P)
Company: NXP Semiconductors
Profile: SoC Design

Recruitment Procedure

Written Test, Technical Interview, HR Interview

- **Test:**

  Test had questions from 4 subjects: Analog IC Design, CAD for IC Design, Digital Design, VLSI Design

  Written test was easy. However, it is important to maintain speed to attempt all questions.

- **Interview:**

  Questions:

  a. Tell us about yourself.
  b. Tell us about your previous job profile. Why did you leave your previous company?
  c. They had my written test paper with them asked me questions from that. They asked me answer to the questions that I had attempted wrong because of silly mistakes. I explained them the answers and they were satisfied.
  d. Next they asked me VLSI Design flow steps and asked me to draw it, what is Moore and Mealy machine and difference between them, asked me to design a Mod-16 counter using Moore and mealy machine.
  e. They also asked me about my VLSI design project and asked me to explain that in detail.
  f. They questioned me about my Research Practice Project. Under that they asked me what is Monte Carlo analysis, why do we do Monte Carlo analysis, steps to do it in Cadence and causes of PVT variations with an example.
  g. My CAD project was UART and by coincidence, the written test paper had a question on UART wherein we were asked to design a UART system for a specific baud rate. So I was asked questions on that. I was also asked about the RTL steps and layout procedure(SoC Encounter) for UART Transmitter and receiver circuitry and whether the post layout analysis showed any kind of timing violations or violations of given specifications.
  h. What is Latchup problem in CMOS? Explain in detail by drawing the circuit and the MOS layers.

  Also explain solution to it properly.

Sources of Preparation:

VLSI Design- Kang, Rabaey, Harris and Weste
CAD for IC design- Do questions directly from online sources(VLSI Interview questions)
Analog IC design-Sedra & Smith, Razavi
Digital Design- Morris Mano, Floyd
VLSI architecture- Patterson

Also do VLSI architecture projects very well. Especially RISC project and concepts of RISC such as **cache memory basics, pipelining, hazard and stall prevention methods etc.**

Other Relevant Information

Prepare well and don't be nervous. Also don't be disappointed if you have a very less CGPA. Having very good domain knowledge and communication skills will only matter in the interview once you have cleared the written test.

Sector: ET

Name: SWETA PRASAD (2018H1400168P)
Company: NXP Semiconductors
Profile: SoC Design

Recruitment Procedure:

We had a written test which covered questions from almost all electronics topic, for example VLSI, digital, analog, microprocessor, computer architecture, C language, Verilog etc. Students who cleared the subjective paper were called for technical interview. I had done few questions wrong in my paper so they started with those questions in technical interview. They asked questions STA and clock domain crossing. They just wanted to see my approach and concept. They also help you if you are stuck at some point. They see how fast you can grasp and approach towards the solution. They check how clear you are with your basics. Then they asked me questions from my projects that I had mentioned in my resume. They also asked me about my previous job. At the end, I was asked in which profile I am interested and what job location I would prefer.

After that, I had HR round. It was a very casual round. HR asked me about me about my family, my hobbies, my location preference.

Sources of Preparation

VLSI Design and Architecture: Class Lectures
Verilog: Samir Palnitkar
C, Computer architecture: GeeksforGeeks
STA: vlsi-expert.com
Digital: Morris Mano

Courses and Certification

VLSI Design, VLSI Architecture, Reconfigurable Computing.

Other Relevant Information

Prepare your projects well. Following are the few topics which I feel are important for interviews:

- STA
- Clock domain crossing
- Verilog Interview questions
- FSM

Sector: ET
Name: Ashish Pratap Singh Bhadoria
Company: Qualcomm

Profile: Associate Engineer (Software)

Recruitment Procedure:

- Online Test, Technical Interview, HR Interview
- The online test was 90 minutes long and consisted of 3 sections:

   1. Aptitude and Mental reasoning – This part was pretty easy and the practice tests provided by the Placement Unit would more than suffice for the preparation.
   2. Computer Programming : The questions in this part were based primarily on C and relied heavily on the basics of C such as pointers, structures, enum and precedence and associativity.
   3. Computer Science: This section has a choice and I chose Computer Science, this part had some questions from Data Structures as well as Operating Systems and consisted basic syntactic problems from PERL and Python.

- Technical Interview: The interviews started with the discussion of my resume and projects. The interviewer followed up with questions based on the projects. Be thorough with your projects and try to find out the learning outcome and possible alternatives to the procedure you followed. There were some basic questions on C and data structures. There were questions from OOP and OS too.
- HR Interview: The HR was pretty cool and asked me to describe my day on campus. He also asked me about my interests and hobbies. The interview went like a casual chat.

Sources of Preparation:

- Leetcode and Geeksforgeeks for data structures and programming basics. Class notes and lecture slides for OOP and OS.

Courses and Certification:

- Courses for OOP and OS will be helpful. No other certifications are required.

Other Relevant Information:

- Try to be as thorough with your resume as possible as a major part of your interview will be based on that. In case you face any difficulty feel free to ask the interviewer for help, they'll be more than willing to help.

Sector: ET
Name: Ashish Raj(2018H1230257P)
Company: Qualcomm

Profile: Hardware Engineer

Recruitment Procedure -

- **Online test followed by 2 rounds of technical interview and last HR round.**

1) Online test - a) one part was aptitude.

   b) one was totally about C programming

   c) last was technical part(mostly digital electronics)

   - You have to clear all three parts to get qualified for interview.(individual cutoff)
   - To crack the written test, you have to have a good speed because the questions from digital electronics were of good level...ex- conversion of one FF to another...next state(FSM)... questions from ST
   - Regarding C programming.. I had a good grasp of C programming, so it was easy for me… For those who don't have good knowledge of it.. go through Let US C by Yashwant Kanitkar and then practice tests from geeksforgeeks. Clearing this section is the game changer.

Coming to interview part -

1st round - Interviewer was so good and chill...He started by looking at my resume...some sarcastic comments on my prior work experience which made me laugh which he wanted me to do..then asked me to write the verilog code for D FF with synchronous set and asynchronous reset. I did it as quickly as he asked. Next he gave me three different verilog codes(wanted to know my understanding of blocking and non-blocking assignment) and asked me what the hardware would be if we synthesized it. I knew the exact answer as I had gone through lectures of Prof. Indranil Sengupta(IIT KGP) and he had taught the very same example. He was seemingly impressed and then he moved to STA. Gave me a circuit and asked me to find the setup and hold violation. If yes what to do to resolve it. Then he asked if hold is always frequency independent. And I said no and provided all the scenarios in which hold is frequency dependent.(You can go through this topic from vlsiuniverse in google). I used a term zero cycle hold check and half cycle hold check and he asked me where did you learn it. So I mentioned

him about VLSIUNIVERSE. He gave me a circuit with three T FF and some combinational circuit and asked me to write the states of it. I explained to him my steps while doing it and he was very much satisfied that my concepts were very clear. Lastly he asked me a puzzle in which I got stuck, and he was very happy and he said finally you stuck somewhere. Then he gave me a hint and I solved it. I knew that I would be going to the 2nd round.

2nd round - Interviewer was not very strict not very chill...he started with basic digital electronics questions like draw an xor gate with NAND gate...I did it quickly so I guess he thought I have memorised the circuit...he gave me a Boolean expression and then told me to draw it with NAND...I did it in no time...Then he asked me about power loss and how to save power ...I had gone through lectures of Prof Indranil Sengupta about power saving...I explained power saving on all the levels...like architectural , gate level, behavioral...and he looked satisfied...Then he gave 3 conditions..like A is 1 & B is 0 ..o/p is 1..A is 1 & B is 1 ..o/p is 1..when both 0..o/p is previous state...he asked to implement it...I used a mux and a FF at the o/p connecting one of the I/p with A&B as select line of MUX...then he gave me a circuit and asked me to find next state of it...then he asked me implement a circuit which can detect number of one's in a 16 clock cycle..and reset it to zero and again start counting...I was explaining him while implementing and we both were using pen and interacting while solving...that was the best part..he was so involved that for once I forgot he is the interviewer and we just kept on discussing various approaches to implement it...after that he asked me to write the verilog code for that circuit...I wrote it down and he was finally smiling...he asked me a last question before letting me go that if I would be comfortable working with colleagues who will be younger then me as I had 3 years of job experience..I said I have no problem with it...he asked about my location preference in which I said Bangalore and this round was over too.

3rd round - Nothing to worry. HR was very cool. He asked the places around Pilani which serves good food. Asked about my prior jobs. And then said best of luck for the future.

All three rounds done.

Sources of Preparation:

- **Google - Vlsiuniverse, vlsiexpert, signoffsemi, asic world,vlsi system design,**
- **interview-vlsi.blogspot.com,edn.com..bookmark everything and go through all the topics…**
- **For quick revision of C - pogramiz.com**
- **YouTube - power saving , testing of circuits and verilog -- all three from lectures of Prof Indranil Sengupta. Digital electronics from neso academy. Digital gate questions from BSK - Digital Circuits. Sizing of transistor- Jan M Rabaey lectures.**

VLSI Design and Architecture - Prof Guru Naryan Sir lectures

Courses and Certification:

- I have a paper published in the journal of computational electronics.
- I attended one conference in CEERI Pilani on transducers and actuators and participated in a poster presentation. So I had the certificate for it.

Other Relevant Information:

- Even though I wasn't asked a single question on my project , I was fully prepared for it.
- Be fully prepared with digital, verilog code and STA...learn every aspect of STA from above mentioned sources.
- Learn python, as the industry is moving towards it. As I knew python , it was an added advantage for me.

Sector: ET.
Name: Atul Kumar Mishra (2018H1400187P)
Company: Qualcomm India Pvt. Ltd

Profile: Hardware Engineer.

Recruitment Procedure:

Eligibility to apply was 7 CGPA and above. Process comprised of

- Online test
- Technical Interview(2 Rounds)
- HR Interaction

Online Test:

- This test had 3 sections namely Aptitude and Reasoning, C and Data structures, and Electronics section(containing digital design, computer architecture and microprocessor 8085).
- Aptitude section had 20 questions to be attempted in 30 minutes. The section consisted of questions from average, work related questions, distance and time, pipes and cistern geometry(internal angles in an arc),data interpretation question had 5 linked questions to it.
- In the C/DS section(20 question/30 Minutes) there were 4-5 questions on output of code snippet, 3-4 questions on finding error ,questions on structures and union, circular linked list and queue were also there.
- In the technical section(20 Question/30 Minutes) there is an option to choose one from the two given choices of Digital Design and Communication. As I attempted the Digital section it had questions on mux,encoder,data hazard related question, complemented POS of Boolean equation, and 2 questions on static hazard. There were a few questions on determining that the function is causal/linear/time-variant or not. There were questions from VHDL and a question from design for testability.

Interview: (Round 1 and 2)

- Questions were asked from memory architecture, transfer of data from secondary memory to L1 cache, full-associativity concept in cache,Paging and virtual memory.
- Types of finite state machines and was asked to write Verilog code for pattern detector moore type.
- Questions on one-hot encoding and circuit design for a pulse detector was asked indirectly by giving the input and output waveform. And a brief discussion on how latency and throughput is affected in pipelining, the bottleneck of pipelined machine and types of hazards.
- Verilog code shown and asked for synthesized circuit(always block without else statement, it form inferred latch)
- Was given a three gate arrangement and was asked to make it with NAND only.
- Asked to design a circuit that counts the number on 1's in 16 clock period's time and displays it .Was asked to write Verilog code for the same.
- Shown a circuit with MUX with a select signal which either holds value or increments the value, was asked the functionality of the circuit which was a counter. He asked to add the functionality of load number in the same circuit and further asked to write Verilog code for the final circuit.
- Verilog snippet for Synchronous and asynchronous reset and their advantages and disadvantages.

HR Interaction:-

- Was asked about interest and choice of location.

Sources of Preparation

- For aptitude Refer solving questions from IndiaBix, Books: Arun Sharma,RS Aggarwal

- For C programming Refer to Geeks for Geeks IndiaBix, Test your C skills
- For Digital section Refer to gates notes, Morris Mano, Cmos from Kang and Rabaey
- For Interview: Refer to Kang for Cmos, Morris mano for digital, Static timing analysis is very important to be done from vlsi-expert.com
- Concepts of cache,paging,memory architecture from computer architecture by Hennessey and Patterson

Courses and Certification
VLSI Design,VLSI Architecture

Sector: ET
Name: Nitin Chand M S (2018H1400171P)
Company: Qualcomm

Profile: Engineer (Hardware profile)

Recruitment Procedure:

- Online test:
    - It consists of three sections – Aptitude, C and Technical
    - Each section will have 20 questions and about 30 mins to finish each section. Totally 1.5 hrs.
    - You can't switch between the sections. Only when you complete a section can you go to the next section.
    - Aptitude section: It had data interpretation, data inference, speed, time and distance problem, pipe- siren problem and other basic topics.
    - C section: It had questions to find the output of a code snippet, question regarding data structures like linked list, queue, stack etc.
    - Technical section: Questions related to flip flop and latches, memories, logic gates, k map, digital design etc.
- Interview:
    - There were two technical interviews and one HR.
    - Each technical interview lasted about 45 mins to 1 hr and the HR interview was about 5 to 10 mins.
    - In technical interviews, they mainly focused on the flip flop, latch designs, Verilog coding, clock domain crossing techniques, synchronizers, MUX design, setup and hold time concepts, metastability etc.
    - In the HR interview, they asked about ourselves, job location preference, what we expect from a company.

Sources of Preparation:

- For aptitude, try RS Agarwal book and websites like Indiabix etc. Try practicing the problems using the aptitude test series provided by the PU.
- For C and data structures, use the Geekforgeeks website. Books like Let us C are also good.
- For digital design use Morris Mano.
- The CMOS design can be studied using the CMOS Digital Integrated Circuits - Analysis and Design by Kang and the Digital Integrated Circuits by Jan M. Rabaey. The Rabaey gives more detailed concepts. So I suggest to go through both the books to understand the concepts well.
- The setup and hold time concepts can be studied from the vlsiexperts.com website. The website can also be used for the cross domain crossing techniques.
- The CISC and RISC architectures can be learned from the VLSI architecture course slides. You should properly know the difference between them.

Courses and Certification

You should have done courses such as VLSI designs and VLSI architecture. You should also have a good knowledge about the Verilog language.

Other Relevant Information:

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- Properly manage the time during the test. Aptitude section will take time so plan accordingly. You will have enough time for C and technical.
-       During interviews, even if you don't know the answer, try to give some related solutions to solve the problem given by them. They don't want the correct answer but they want to check your approach for solving a problem.

Sector: ET
Name: Rajat Ligade (2018H1240112P)

Company: Qualcomm

Profile: Engineer/Associate Engineer-Hardware Profile.

Recruitment Procedure:

- Online Test, two technical interviews, and one HR interview.
- Online Test:

  The online test had three sections:

  First section was aptitude. Question set mainly contained questions from quant and data interpretation.

  Second set was programming. Questions of basic C and C++. Problems: find an error in the code, find the output of the code, and basic Digital Electronics.

  Third set was technical. Choose one between Digital electronics and Communication engineering.

  Maintaining accuracy is very important as there's negative marking.

- Technical Interview:

  The first interview went for about an hour. Questions were asked mainly from **Static Timing Analysis** (STA) and **Verilog**. Some questions were asked on basic **logic designing** as well. I had some self-projects from communication domain, so the interviewer asked me about those as well.

The second interview was a bit shorter. Again the questions were on logic design. A question from coding theory was asked as well. This interview was mainly focused on my ability to develop logical circuits in the most efficient way possible. A couple of questions from Verilog and C (just algorithms) were also asked.

- HR interview:

  It was just an interaction round. We talked about sports and its importance, location preference, and work profile.

Sources of Preparation:

- STA: Digital Integrated Circuits - Jan M. Rabaey, vlsi-experts.com.
- Verilog: NPTEL Lectures and book- "Verilog HDL: A Guide to Digital Design and Synthesis (Samir Plantar)."
- Digital Electronics: CMOS_digital_integrated_circuits (Kang).

Other Relevant Information;

- Try supporting the statements you make with an example.
  E.g., if you are asked about setup time, rather than just defining setup time, draw a circuit and show what exactly you mean by setup time.

- It's all about confidence and how dedicated you are towards the domain. **Your lack of dedication towards the domain and company can be a deciding factor** even if your interview goes extremely good.
- Interviewer sees your approach towards the solution. How you think is way more important than just giving the right answers.

Sector: ET
Name: Tooba Shabnam Mohd Mukarram (2018H1240102P)
Company: Qualcomm
Profile: Engineer (Hardware)

Recruitment Procedure:

● Online Test , Technical Interviews , HR

Online Test :

● The test had three sections namely Aptitude,Technical and Programming with negative marking.

● Aptitude questions were mainly from Data Interpretation,Number series,Time and Distance,Coding ,Ratio and Proportion,Time and Work.Initial 5-6 questions were quite difficult.Don't waste time on solving such questions,instead solve the ones you are confident about.The Data Interpretation part was so easy and had 3-4 questions linked together.

● For the Technical section there was selection between Digital electronics and Communication.Digital electronics had questions on MUX,Microprocessor,FF design,Latches,Counters,Registers,Digital logic design etc.This section was the easiest of the three.

● Programming section had questions on C programming(find output, error),Data Structure,Searching and sorting.Questions were difficult and lengthy.

Technical Interview 1 :

● There wasn't any traditional question of introduce yourself.They just asked my name,branch.I have mentioned VLSI design as one of the course,so first question was about syllabus.Then on setup hold time and their violations,skew and jitter,asynchronous and synchronous reset design,FF,Latches,Data on the BUS for every clock edge(for given design).

● Digital design questions like for given circuits find its functionality,how to load data in the counter,XNOR using two input NAND.Only one question from communication (Hamming Distance of Gray and Binary codes).

- There wasn't a single question on my resume,courses,projects except VLSI and Digital Design.The focus was on approach rather than the final answer.If your approach and concepts are correct,following the interviewer's hints,you will get the answer.

Technical Interview 2 :

- The interviewer was from Verilog coding team,and I hadn't studied it.So he has made one truth table and asked me to design the circuit.It was priority encoder,but don't care were replaced by zeros.I said that,so he asked me to design the one with don't care(Here I framed his question for me-the easier one to design) .
- My VLSI design project was on Full Adder ,so he asked different adder architectures,basically along with the project ,you should know everything related to that field.
- There were questions on Mealy and Moore machines -FSM Design(Overlapping/Non overlapping sequence detector).To design digital circuit for finding a number divisible by 5 in infinite binary sequence(Applied serially to the circuit).
- Design a circuit using only logic gates,to detect whether given infinite binary sting is one-hot (all 0s and single 1) or not.Interviewer himself said that it's so difficult to design such circuits in limited time,but they were looking for the initial logic and approach towards the problem.

HR :

- This round was just a casual interaction.There wasn't any standard HR question.He just asked me to describe myself on what I haven't mentioned in Resume like Hobbies,Strength,Weakness,languages known etc.About BITS campus,life at BITS, Preferred Location.Then I asked him how is the working environment at Qualcomm.

Sources of Preparation:

Kang and Rabaey for VLSI Design(Gurunarayan Sir Lecture videos) , Theodore S.Rappaport,Wireless Communication , RF Microelectronics,Second Edition,Behzad Razavi , Digital and Analog Design (GATE Notes) , Aptitude Test series provided by PU training course , C programming tests by IndiaBix.

Courses and Certification:

VLSI Design,RF Microelectronics,Advance Digital Communication,Mobile Personal Communication,Analog and Digital Circuits.

Other Relevant Information

- Be confident about what you are explaining,it will come from preparation of all courses you have done in the entire first academic year.Be thorough with the subjects ,projects,concepts .Don't go for last month studies.
- Try to be honest,if you don't know anything,just say it ,don't lie or give the wrong answer.Keep practicing aptitude and programming tests before the actual one.
- Most importantly,don't rely on a single subject or field,prepare well for both VLSI and Communication profiles,subjects related to them.Then in resume mention subjects according to the profile.

Sector: ET
Name: Yojana Goyal (2018H1240101P)
Company: Qualcomm

Profile: Engineer (Hardware)

Recruitment Procedure: There were 4 rounds :-

- **Online Test**:
  It consisted of three sections of 30 minutes each. Switching between the sections was not allowed. All the sections had individual cutoffs. To finish all the questions one had to maintain a good speed. The sections were as follows :

  a. Quant and reasoning : Questions were mainly from Data Interpretation, Linked Paragraph based question, time and distance etc.

  b. C language and Data structure : Questions were mainly based on arrays, pointers, sizeof operator, functions, linked list, graphs, queues etc.

  c. Technical section : It had three options. They were digital domain, communication engineering domain and software domain. Questions were based on digital electronics, microprocessor (GATE level with slight twist and modifications) , VLSI design and computer architecture.

- **Technical Interview (Round 1) :**

  It lasted for about half- hour. The questions were based on digital electronics and VLSI design. The questions included :

  - Design of two bit adder and multiplier.

  - Finite State Machine, Mealy and Moore Machines, Advantages and Disadvantages of both types.

  - Sequence detector question : Designing it's state diagram (overlapping case)

  - Question based on MUX : Designing different types of Gates using MUX.

  - Metastability

  - Basic Questions on STA.

- **Technical Interview (Round 2) :**

This round lasted for about 45 minutes. The questions again were based on digital electronics, VLSI design and a little bit of coding theory . The questions included :

  - Design of a FA using HA.

  - Decoders and designing various functionalities using decoders.

  - Implementation of 2:1 MUX using NAND gates.

  - Pass transistor logic and designing of MUX through pass transistor logic. (Since my project in VLSI design was based on that)

  - Given a black box with two inputs and one output. He gave me various conditions at input and corresponding outputs. Now he told me to design the circuitary inside of that black box which would satisfy those conditions.

  - Question based on Hamming distance.

  - He gave me a circuit and asked me the ways to increase the clock frequency of that circuit.

  - STA

  - Given a black box with a clock and string of bits at input, design a circuitary that would count the number of 1's occurring in the input bit stream for every 16 clock pulses.

  - Then he asked me about my family , my graduation place etc. to smoothly end the interview.

- **HR round :**

It lasted for about 25-30 minutes. First the HR introduced himself then he asked me a few questions :

  - Tell me something about yourself apart from what is mentioned in the resume.

  - Given a team of 2 people and 5 people , which one would you prefer and why?

  - Suppose there is a team of 2 people and the other person is entirely opposite of you , how would you deal with him.

- Again in a team of 2 people if the other person speaks an entirely different language and he doesn't know English too then how would you communicate with him and complete your task?

- What would be the impact of 5G on the nation , in people's life and how would it impact you? Take your time, think carefully and answer.

- What are good and bad things about BITS campus.

- If you are selected today then what would be your expectations from our company.

- Any questions that you have for me. (Try to ask some questions as it gives a good impact and shows your interest towards the company)

Sources of Preparation:

- Digital electronics - Gate notes and online video lectures
- VLSI Design - Kang, Rabaey, Lectures of Gurunarayan sir
- MPC – Rappaport and Andrea Goldsmith
- ADC – Class notes and online video lectures
- **STA** – It is very important to go through these sites if you want to understand the concepts of   STA. Questions in the interview are mainly based on this material.

    http://www.vlsi-expert.com/

    https://vlsiuniverse.blogspot.com/2016/10/setup-hold-check-example.html

Courses and Certification : VLSI Design

Other Relevant Information :

I would like to share some tips based on my interview experience that helped me to smoothly crack the interviews :

- Do not panic in case you are not able to remember things. Explain them whatever is coming to your mind even if you don't know the complete answer.
- Try narrating whatever you are writing while solving the question. This will be helpful if you get stuck in the middle, the interviewer will help you in getting to the answer.
- Try to focus on approach rather than the answer as the interviewer is interested to see your approach towards solving a problem.

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- Even if you know answer to a question directly, don't answer it directly pretend like you are thinking a lot and answering it.
- Read about the company that you are appearing for because they ask you questions to check if you are interested in that company or not.
- Mention only those things in your resume that you are confident in.

Sector: ET

Name: Abhinav S (2015B5A30490P)
Company: Samsung Semiconductors
Profile: Digital Engineer

Recruitment Procedure:

1. Online Test :

    a. There were 48 questions in the test. Most likely, it would be impossible to attempt all questions within the given time. Getting 30-35 right should be enough to qualify for interviews.

    b. Questions were mainly based on Digital Design and Static Timing Analysis. Thevenin and Norton's equivalent circuits should also be practised. Try to derive the expressions by inspection, as you would not have enough time to solve big equations.

    c. The Principle of Superposition is the key in these questions.

    d. As for Digital Design, you need to have the circuits of few basic elements like adders, multiplexers etc. on your fingertips. Though it is easy to derive them when needed, it will lead to loss of time. Brush up on Verilog as well.

2. Technical Interview :

    a. Around 13 people were shortlisted for the interviews.

    b. Usually, there is a pre-placement talk before the interview. Pay close attention to the PPT, as it details the various hardware and software teams working there. Questions related to the PPT may also be asked in the interviews.

    c. There were two technical interviews. The first one was almost exclusively resume oriented. I was asked to explain about my summer internships, and then my projects. I had to explain the complete approach behind my ADVD projects. When it comes to your resume, you should not only know your projects inside out, but should also be wise while mentioning subjects and electives. Put only those that you are good at and revise key concepts before the interview. One of my electives was 'Modelling of Field Effect Nanodevices'. I was asked multiple questions related to device physics and MOS scaling.

When it was my turn to ask questions, I asked about the team the interviewer was working with, which he explained with great enthusiasm.

d.   The second interview was pretty short. There were a few Verilog questions. I could not answer some of them, but they did not seem to mind much. Finally, I was asked to design a circuit for multi-bit pattern detection. Initially, I was given a lot of flops but very few gates. The second case was to design using few flops but any number of logic gates, which involved a state diagram. I did not have to design the circuit completely as they were only looking at the approach.

3.   <u>HR Interview</u> :

a.   This was also fairly short. I was asked to describe myself first.

b.   I was asked to explain about the hardest project I have done and how I went about it. Finally, I was asked about higher studies and if I planned on getting a Master's degree. In my case, being a dualite, I told them that I would be receiving a Master's degree as well when I graduate, and hence I had no intentions of getting another one. When asked about a PhD degree, I was honest and told them that I was not mentally prepared for a PhD. Finally, I was allowed to ask questions, and I asked them about work pressure.

Sources of Preparation:

- All of the course textbooks, especially for Digital Design and Analog Electronics. Also revise ADVD slides.

Courses and Certification

No courses are required other than what has already been taught.

Other Relevant Information

- Do not panic if you are unable to solve a question. You can always ask the interviewers for hints, and they will be more than willing to help. And think out loud when you are answering to allow the interviewer to follow your thought process.

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Sector: ET
Name: Gupta Aditya Ajay (2016A3PS0132P)
Company: **Samsung Semiconductor**

Profile: Senior engineer- Hardware

Recruitment Procedure:

- Online test, 2 technical interviews and HR interview
- Online test- The test had 48 questions that had to be done in 68 minutes. The test had questions based on digital design, basic RC circuits, STA, basic ES concepts, etc. Questions were fairly easy but the time was not enough and solving questions as quickly as possible was the main task.

- Technical Interview 1- In this round they asked questions about the projects in my resume and asked me to explain it in detail. Follow up questions were about current mirror, differential amplifier, current biasing, etc. I was also asked questions about transmission gates and their advantages and disadvantages over CMOS design. He also asked me about my plans for MS.

- Technical Interview 2- They asked basic logical questions to test my approach. The interviewer asked if I knew about FIFO and its use in digital electronics. Then he asked me to estimate the size of the FIFO queue used to integrate 2 systems with different data transfer rates and ask for any data that I required to do so. I was also asked questions about Verilog coding. In the end I was asked a question about a RC circuit and its response to an AC input.

- HR Interview- I was asked questions about my family, etc. I was asked to tell what all difficulties I came across during one of my projects and how I tackled them. My plans for MS were also discussed.

Sources of Preparation:

- Digital Design - Morris Mano
- ADVD - Rabaey, Kang, Slides
- Microelectronics - Sedra, Razavi, Slides
- Electrical Science- Bobrow, Slides, IIT Madras Online Lectures
- Computer Architecture- Slides
- STA- http://www.vlsi-expert.com/
- Electronic Devices - Textbook

Courses and Certification:

Computer Architecture, OS

Other Relevant Information:

Most of the companies require skills in Digital VLSI Design and understanding of Static Timing Analysis. Some companies like Qualcomm ask a lot of questions from Static Time Analysis so prepare well for it.

Pay attention during the pre-placement talk and form one or two questions you can ask during the interviews. Try to ask some questions specific to the company that shows you have done research and you are serious about the job.

Don't include anything you are not comfortable with in your resume.

Sector: IT/ET

Name: Akhilesh Singla (2018H1120260P)
Company: Samsung Semiconductor
Profile: Senior Engineer - Software

Recruitment Procedure:

- Written test, 2 TR, 1 HR
- Written test:
    - Written-test remains the same for all the Samsung departments. Questions generally repeat.
        - https://interviewbubble.com/samsung-3-hour-coding-test-questions/
        - We were asked Q1 of this link: https://interviewbubble.com/samsung-interview-questions-asked-in-samsung-3-hour-tes t-set-2/
    - I code in Java but after 50 mins they had some bug in Java. I was told to either leave or code in C, CPP. I did it in CPP from scratch.
    - Out of 122 students who gave the test, 7 cleared it.
- Tech 1:
    - 1.25-1.5 hr long
    - Deep discussions on projects and some coding questions
    - Interviewer converted my projects into a small system design questions and asked specific things like
        - "do you think your project in real-world require ML, why and why not?".
        - Had worked on a GPS module in one of the projects. He asked me its working and asked: if a vehicle has just collected its location coordinates then after how much time the vehicle should recollect its coordinates.
    - Coding questions I remember:
        - Given an array of 10000 integers containing each integer from 1-10000 in any order. Find if each number is a prime or not and give the output in sorted order.
            - Sieve of erasthones

- Built-up the solution from brute force to sieve without ever mentioning the name of sieve.
- Given a dictionary of words. We need to find for each word if it is a palindrome or not.
  - An open-ended question
  - What I came up with: if a word is a palindrome then its next word can't be a palindrome. If a word isn't a palindrome then we can't say anything about the next word and we have to check it for isPalindrome.

- Tech 2:
  - 1.25-1.5 hr long
  - Out of 7, 3 were rejected after their tech 1.
  - Asked any random subject or point from my resume and drill deep into that point until I made a mistake or didn't know deep enough.
  - 5-7 medium level programming questions wrote code for each of them
  - Some of the questions:
    - A river has stones on it. A rabbit wants to cross the river. The rabbit can either jump a single stone or skip a stone with a larger jump to reach the next stone. Find the number of ways it can cross the river.
      - DP question
    - Given two large number in two strings. Multiply them and return the output in a string.
      - Used concepts of primary school multiplication with a lot of edge cases
    - There is a set of employees and a set of jobs. Each employee can take one job at a time but an employee can show interest in multiple jobs. Meaning an employee can be allocated any job at a given time from his interest set. Find if it is possible to allocate jobs to employees without a deadlock.
      - Used backtracking
  - He tried to find an error in each line of my code and would ask language-specific questions randomly.
- HR:
  - A panel of 2 interviewers, 30 mins long.
  - Kind of stress interview as the interview had AC off and fan on slow speed. I was sweating a lot but didn't get time to take out my handkerchief as they kept on shooting the questions.

○ One of them would suddenly go outside the cabin for a few mins. After coming back in, she would ask the same questions that I just answered. I smiled and answered them again in brief.

○ General HR questions

○ I even had to write code and go into technical details of my projects for them even when they knew nothing about what I was saying

○ Out of 4, 2 were rejected after their HR

Sources of Preparation:

● Did most of my prep during summer vacations.

● IB, GFG, Hackerrank, Hackerearth, CTCI, GATE notes and a few other resources

Courses and Certification:

Software for Embedded Systems (under Meetha V Shenoy) and my project in it was the most discussed project during tech1 and HR.

Other Relevant Information:

● Keep snacks and a water bottle handy. I used a water break during interviews when I was stuck or thirsty. It really helped in some awkward, tricky and uncomfortable situations during the interviews.

Sector: ET
Name: Akshit Goel (2016A3PS0317P)
Company: Samsung Semiconductor

Profile: Senior Engineer - Hardware

Recruitment Procedure:

- Online Test, 2 Technical Interviews, HR Interview
- Online Test :
    - MCQ questions.
    - Problem solving required high speed and clarity of basics.
    - Digital Design, Comp architecture, Static Timing Analysis, ADVD (particularly digital part) were very important.

- Technical Interviews:
    - Clarity with the projects mentioned in Resume is very important.
    - Asked simple Digital Design questions like difference between flip flops and latches, conversion of one flip flop to another (like D flip flop to T flip Flop) etc.
    - Asked questions on Verilog coding.
    - Asked about metastability, forbidden state in flip flops.
    - **Important:** Continuously speak out your thoughts. It is fine even if one does not reach the end answer but speaking what one is thinking allows the interviewer to judge the problem-solving approach. Just thinking without speaking might give the impression that the candidate is blank and has no clue about the problem which might not actually be true.
    - Stay confident and one must not get nervous even if he/she does not know an answer.

- HR Interview:
    - Challenges faced during projects and how did I handle them?
    - Long term and short-term goals
    - Why Samsung?

Sources of Preparation:
- Digital Design: Text book - Morris Mano
- ADVD: Textbook – Rabaey (Power, Logic Families e.g. CMOS, Pseudo NMOS etc. very important)
- Comp Arch – Slides, Text book
- STA – www.vlsi-expert.com
- In general for other companies as well, for analog portion apart from text book or slides, online videos by Prof. Behzad Razavi are also very helpful in clarifying concepts.

Courses and Certification:

- Computer Architecture

Other Relevant Information:

- At the end of the interview, if the interviewer asks for any questions, then try and ask a question instead of simply saying no.
- Be clear with the thoughts about higher education.

Sector: ET.
Name: Mahanth Kumar Gurram (2018H1230240P)

Company: Samsung Semiconductor

Profile: Senior Engineer- Hardware

Recruitment Procedure

- Recruitment procedure consists of three phases Written Test, Technical Interview(2 rounds), HR Interview.
- **Written Test**:

  The written test consists of 48 questions(no negative marks) and duration for the test is 69 minutes. Questions are mostly from Network Theory, Digital Design, Static Timing Analysis(Setup and hold time questions) and few questions from VLSI Architecture(RISC part). Level of the questions are intermediate.

- **Technical Interview**:

  Round1: In this round they mostly focused on technical questions from Verilog, FSM(Finite State Machines),FIFO Design, STA(Static Timing Analysis).

  Question1: Write a verilog code to generate a clock signal with 20% duty cycle?

  Question2: Design a FSM to detect the overlapping sequence 10101110(something like this).

  Question3: What is FIFO? How does FIFO work? Where do you need a FIFO? How do you design a FIFO(Given two systems working at different clock freq and asked me to design a FIFO)?

Question4: Define Setup and Hold Time? What is Metastability? How to avoid Metastability?

Question5: Given a number, explain an algorithm to find number of digits in the number?

The interviewer asked me questions(mentioned above) from different areas and tried to find my approach and knowledge. During the process he gave hints when I got stuck.

Round2: This round is mostly based on the resume. The interviewer asked about the devices courses that i have done and asked me to explain about the short channel effects in MOSFET and asked a few questions regarding FINFET. Next discussion is on the projects that I have done. Finally he asked about the roles that I am interested in and about my previous work experience.

- **HR Interview**: Discussion on my hobbies and my responsibilities during my undergraduate course that was mentioned in my resume. Discussion on my previous work experience. Discussion on the kind of profiles that I wanted to work.

Sources of Preparation

- Just try to cover the courses properly that are in the curriculum.

Other Relevant Information

- Be sure about everything that is mentioned in the resume.
- Be confident while giving answers to the questions, don't panic if your answer is wrong try to explain your approach.
- When asked about roles be sure about your interest, don't try change your interest for the sake of the interviewer.

Sector: ET

Name: PERUMALLA DEEPAK (2018H1400183P)
Company: Texas Instruments (Internship – PPO)
Profile: Digital Engineer

Recruitment Procedure

- Online Test had 3 sections:
    - Aptitude
    - Digital
        - FSMs – Design questions
        - CMOS style designs
    - Analog
        - RC networks
        - OPAMP applications – Mono stable, bi stable multi-vibrators.
        - BJT amplifiers
- Technical Interview
    - Static Timing Analysis- Setup time and Hold time violations.
    - Flip flop and latches
    - Design circuits of JK, D flip-flop and latches using different logic design styles.
    - ASIC design flow
    - Device Physics- MOSFETs (channel length modulation effects)
    - Leakage currents – Static and Dynamic
    - FPGA – Rapid prototyping.
    - Verilog HDL
- HR interview
    - Brief introductions on projects listed in the resume.

Sources of Preparation

- Static Timing Analysis – Rabaey and vlsi-expert.com
- Device physics – Donald Neamen

Courses and Certification

VLSI Design, Reconfigurable computing

Sector: ET

Name: AYAN SAIKIA (2018H1230252P)
Company: Western Digital (Sandisk)
Profile: Senior Engineer

Recruitment Procedure

Online Test, two Technical Rounds and one HR Round

- **Online Test:**

  a. The test consisted of four sections (Aptitude, Digital Circuits, Analog Circuits and C-Programming) of 70 questions in 60 minutes. The Aptitude section consisted of 10 questions while the rest of the sections included 20 questions each. The Aptitude Section was mandatory while we had to prioritize for the rest of the sections. I attempted Aptitude, Analog and Digital Sections.
  b. The test was of moderate level. The Aptitude Section was easy but time consuming. The Digital and Analog sections were tricky but doable. Accuracy was crucial. Reverting back to previous sections was allowed.

- **Technical Round 1:**

  This round was primarily from Analog circuits' domain. A few questions from the written test were asked. Based on these questions, the interviewer then put forward connecting questions on the particular topic. These questions were raised to check the understanding and the problem solving skills of the candidate. The topics that were questioned in the interview were primarily from OpAmps, BJTs, MOSFETs, OpAmps along with RLC circuits, cascaded OpAmps, Voltage Regulator Circuits (Zener Diodes) and some basic concepts from Signals and Systems (predicting the output of basic filters, Gibbs Phenomenon) etc. During these questions, the interviewer asked me to explain my Analog IC Design project on Differential Folded Cascode Amplifier.

- **Technical Round 2:**

  The second Technical Round was from the Digital Circuits Section. The interviewer asked me basic questions from combinational circuits. A number of questions were raised from the topic of STA and had to solve few problems from the aforesaid topic. To finish the technical round, the interviewer asked me a question on Threshold Voltage from the topic Semiconductor Devices.

- **HR Round:**

  Standard HR questions were asked. The interview lasted for about 20 minutes.

Sources of Preparation:

- Practice GATE level questions on the topics of Digital Circuits, Analog Circuits and Network Theory for the Online Test.
- Textbook References:
  a. Microelectronics – Sedra and Smith
  b. Design of Analog CMOS Integrated Circuits – Razavi
  c. Signals & Systems – Oppenheim
- VLSI Expert to understand STA.

Courses and Certification

For Analog profile, courses like Basic Electrical Circuits, Analog circuits, Signals and Systems, Control Systems, Microelectronic circuits, Analog IC Design are required.

For Digital profile, courses like Digital Circuits, VLSI Design along with the concepts of STA and an in-depth knowledge on VLSI Architecture are mandatory.

Other Relevant Information:

Be confident and positive. The interviewers mainly focus on the approach of the candidate.

Sector: ET

Name: K SWAMINATHAN (2018H1240114P)
Company: Western Digital
Profile: Digital

Recruitment Procedure

Online Test followed by Interview

1. The online test included 4 sections which are Aptitude, Digital, Analog and C programming. Overall, there were 70 questions.

   - It is important to give priority to your strengths and target the profile you are aiming for based on the different technical sections mentioned.
   - Time is limited and use it judiciously on your target sections.
   - I had focussed my time mostly on digital, analog and aptitude.
   - Digital Questions were wide ranged from basic combinational logic to sequential logic with Static timing analysis.
   - Analog questions include basic analog electronics like BJT, Zener diodes, MOSFET amplifiers, current mirrors etc.
   - Aptitude questions are easy scoring with sufficient practice. The test posed aptitude questions from variety of topics such as mensuration, work & time, age computing, geometry etc. Practice as many of them as possible.

2. The interview round will be dynamic. Further rounds are based on your performance.
3. The technical round was based on the test I had given and the profile I had targeted was Digital. They questioned my approach to the problems I had solved in the test.
4. The interview lasted around 1 hour.

Questions

- Explain your project- Be clear while explaining your project and do not mention anything you have not done in the project.
- Static timing analysis- I was asked few questions related to this topic. You have to be clear in the basics of this analysis. Practice as many examples as possible.
- Basic RC circuit questions.
- The interview was very interactive and dynamic overall.

Sources of Preparation

Text Books:- VLSI design by Kang, Digital IC by Rabaey and Digital Design by Morris Mano

Courses and Certification

No specific certifications required.

Courses: Digital design, VLSI Design.

Other Relevant Information

Be confident and vocal while providing solutions to the questions. You are evaluated by your approach and confidence.

Sector: ET

Name: MIHIR DHARAP (2016A3PS0143P)
Company: Western Digital (Sandisk)
Profile: Engineer

Recruitment Procedure:

- Online Test, Technical Interview, HR Interview, Presentation

- Test had 4 sections and had 40 questions to be solved in 45 mins
    - Aptitude based
    - Digital electronics based
    - Analog electronics based
    - CP based

- Test was easy. However, it is important to maintain speed to finish all questions. People mainly struggled to complete the paper. It is essential to solve the questions with maximum accuracy. The test had +3, -1 type marking scheme. Solving 30+ questions correctly would give you a higher chance of being shortlisted for the next round.

- The technical interview was different for each of the shortlisted candidates. My interview (for internship) was mainly based on the second-year courses, but you can expect questions from third year courses as well if you are sitting for the company as part of your placement procedure.

- The HR interview was a basic interview with general questions about yourself. Although it is essential to study up about the company and the job profile you are applying for.

- Apart from these rounds during my internship season, I had a presentation with the India Leadership Team of the company having all the senior managers. This presentation was based on the work done in the two months of my internship period. The feedback from your reporting managers and the presentation are the crucial aspects considered as part of your PPO consideration.

Sources of Preparation :

All the courses studied till now must pe properly revised, especially the ones which are related to the profile as well as those which you choose to put on your resume. All the projects put up on the resume are extremely important and must be studied and revised in detail. Check for the general questions asked by the company on platforms like Glassdoor, GeeksForGeeks, etc. Revise the basic syntax of C programming and its basic concepts. The understanding of Data Structures and Algorithms is not that important for this profile.

Courses and Certification:

Electrical Sciences

Electronic Devices

Digital Design (Highly Important)

Micro-Processor and Interfacing

Microelectronic Circuits (Highly Important)

Control Systems (Basic understanding)

Analog and Digital VLSI Design (Highly Important)

Computer Architecture (Optional)

Embedded Systems Design (Optional)

C Programming (Important)

Operating Systems

Analog Electronics

Other Relevant Information:

Be thorough with everything you put on your resume, including your projects, courses, certifications (if any), etc. Do not put up things on your resume of which you do not have a clear idea. The CGPA does not matter as long as you clear the basic cutoff for the eligibility. After that only your profile and the understanding of the subjects and projects matters.

Be confident while answering the interview questions and be friendly and respectful towards your interviewer.

A proper read about the background of the company and the job profile offered is very important as it shows your seriousness towards the role.

People with 9+ CGPA as well as an exceptional profile, should expect the question as to whether they are going to pursue an immediate masters.

Sector: ET

Name: SAMBIT PATRA (2018H1400182P)
Company: Western Digital (Sandisk)
Profile: Senior Firmware Engineer

Recruitment Procedure

Online Test, two Technical Interviews and one HR Round

Test:

Test had four sections:
1. Aptitude (10-questions)
2. C-Programming (20-questions)
3. Digital (20-questions)
4. Analog (20-questions)

All the above sections were open for attempt, out of which aptitude section was mandatory. Apart from that any two section can be chosen by individual as per his/her profile interest. I opted for digital and C. Aptitude questions were mostly from quants, but they were little tricky. C-programming questions were output based and the basic C concepts must be strong to solve them. Digital questions were mostly from static timing analysis and sequential circuits.

Interview:

There were two technical rounds and then HR. In first technical round, interviewer asked me about my profile interest. As I chose firmware engineering profile, so he asked me some basic questions from C such as pointer concepts, memory allocation and packing. I was given two programs to write code in C, one was from string concepts and other from linked list. Also, the interviewer asked me to solve few C-questions that I answered wrong in the written test and asked me about my project in embedded system design project.

In the second technical round, I was asked questions from advanced C, scheduling, computer architecture and RTOS concepts. Strong knowledge of computer memory management is required. Also, I was given a program (to code using-C) for finding unique sub-string in a given string. Questions on various communication protocols such as UART, SPI, I2C and USB were asked and told me to explain their transaction. Interviewer asked me to write pseudo code of my Device Driver project which was based on USB driver and flash memory as Block device. One puzzle was given to solve at the end.

Some basic HR questions were asked in HR round.

Sources of Preparation:

- For C-programming GeeksForGeeks can be followed.
- Any reference material can be chosen for computer architecture and OS concepts.
- Knowledge of Embedded communication protocols such as UART, SPI, I2C, PCIe and USB

Courses and Certification

Device Driver, Embedded System Design, Real time operating Systems, Software for Embedded Systems and Computer Architecture.

Other Relevant Information:

Interviewers just want to check approach towards a problem. Try to explain everything on paper of what you are thinking. Try to interact as much as possible with the interviewer. Try to intuitively solve the complex problems with the basics you know. Stay confident and smile throughout the interview. Put all the embedded system related projects on the resume. Device driver project must be given importance.

Domain

IT

Sector: IT
Name: Bishal Nath (2018H1120268P)
Company: Amdocs

Profile: Software Engineering Associate

Recruitment Procedure

- Online Test, Technical Interview, HR round
- Online test included MCQ's from SQL, UNIX, bash script, C programming, Java OOP concepts, Logical Reasoning, Quants, Code to check if there is loop in linked list
- Technical Interview:

  - In-Depth and long discussion on projects. Asked to write pseudo code for some components
  - Made me write most optimized code for rotation of array with little modification

  - https://www.geeksforgeeks.org/given-an-array-a-and-a-number-x-check-for-pair-in-a-with-sum-as-x/ in O(n)
  - Asked a puzzle from gfg (https://www.geeksforgeeks.org/puzzle-9-find-the-fastest-3-horses/)
  - Some basic questions from CN and OS.
  - Made me design a database for online shopping system

Sources of Preparation

- GeeksForGeeks

Sector: IT
Name: Amit Bansal (2016A7PS0140P)
Company: Analog Devices

Profile: Cloud/Mobile Software Engineer

Recruitment Procedure -

- PPT, Written Test (Objective), 2 Technical Rounds, HR round
- Written Test had questions based on C++, OOP, JAVA, Output Prediction, OS and Aptitude
- 1st Technical round focused on basic DSA and OOP concepts of C++ and Java
- 2nd round was mainly about the discussion on projects in Resume and some questions about the company.
- HR interview had questions like
  - Why Analog Devices?
  - Will you go for the Masters? If no, then why not?
  - Did you have interviews with any companies before this? If yes, why weren't you shortlisted for them?
  - Did you do anything to improve upon previous rejections?

Sources of Preparation

- GeeksforGeeks, Interviewbit, Lecture Slides for Computer Networks, OOP and DBS.

Courses and Certification

- OOP, DSA, DBS, OS

Other Relevant Information –

- Follow the ppt in order to get to know about the company so that you can answer questions like why you want to join this company and what are the relevant skills to the job. And make the interviewer feel that you are interested in joining the company.
- Keep reading articles from GeeksforGeeks and solve some puzzles also as they are asked in some interviews.

- Do practice coding questions whenever you get the time and think of different approaches for the same.
- Mention only those Subjects/Courses in which you are confident enough.
- Go through your resume and think of the possible questions that might be asked.
- Revise your subjects thoroughly before sitting for the placements.
- The focus should be on DSA, OOP, and OS. Then DBS and Computer Networks could be looked upon.
- Read questions that are generally asked in HR and what are the acceptable responses. Example - (https://www.naukri.com/blog/frequently-asked-hr-interview-questions-and-answers/)

Sector: IT

Name: Aditya Garg (2015B3A70618P)
Company: AppDynamics

Profile: Software Engineer I

Recruitment Procedure

• Pre Placement Offer after Summer Internship .

• One coding round followed by two interviews during internship hiring .

• Coding round had MCQs on OOP, DBMS and DSA .

• In addition, there were 2 coding questions in the coding round, one of them was on Graphs .

• In first interview I was asked to code a problem on Trees/Graphs, with slight modifications to the question every time .

• In the second interview I was asked problems on Arrays and DP . This was followed by a discussion on one of my projects .

Sources of Preparation

Interviewbit

Courses and Certification

Other Relevant Information

Questions mostly revolved around Graphs, Trees , Arrays and DP . According to me, solving from Interviewbit alone is sufficient for preparation.

Sector: IT.

Name: Ashutosh Goel (2015B3A70658P)
Company: **AppDynamics**
Profile: **Software Engineer**

Recruitment Procedure

1) PPO through on-campus internship.
2) Procedure for intern recruitment:
   Online test, Technical interview, Technical interview

3) Online test had 2 questions: 1 from Graphs

4) Technical Interview : Coding a solution for backtracking problem (The interview was online).

5) Technical Interview : Similar coding problem. (Online)

Sources of Preparation

1) **Geeksforgeeks for algo and practice.**
2) **InterviewBit for practice.**
3) **Contests on codeforces and codechef. (It will be an added advantage)**
   Note: For graphs specifically I prefer hackerearth(for algos) and codeforces(for questions).

Courses and Certification
No requirements as such for internship.

Other Relevant Information

Be relaxed during the interviews, understand the question completely and don't hurry to write the code or solutions.

Sector: IT.

Name: Sahil Ranadive (2016A7PS0097P)

Company: App Dynamics

Profile: Software Engineer

Recruitment Procedure:

Online Test,2 Technical Interviews, HR Interview, Manager Round

1. Online Test: The first round was a hacker rank based test that consisted on three coding questions. They consisted on one dynamic programming problem and two array manipulation problems.
2. Technical Interview 1: This round consisted of two problems based on Data Structures and Algorithms. The first question was based on Topological Sorting and the second question was based on creating an efficient data structure to incorporate insert(), delete() and findRandom() functions in good time complexity.
3. Technical Interview 2: This consisted of one question based on Data Structures and Algorithms. I had to find the sum of the all the elements in a tree when viewed from the bottom(print sum of all nodes in bottom view of a teee).
4. HR Interview: The HR round was fairly basic and I had to answer questions about myself. Positive qualities, negative qualities, ambition and so on.
5. Manager Round: This round started off with a thorough examination of my resume and each point was questioned. Having worked on priority queues I was asked the underlying implementation i.e. heaps and I had to write code for making a heap from scratch. The second question was based on Huffman encoding scheme (the best way to encode letters in a given dataset).

Sources of Preparation: InterviewBit, Data Structures and Algorithms

Courses and Certification: None

Other Relevant Information: Writing code on paper was very important as pseudo code was not accepted. Clarity in writing code was appreciated and I had to code all the above mentioned questions on paper irrespective of how long the code would be.

Sector: Mechanical
Name: Akshat Mallya (2016A4PS0304P)
Company: Bajaj Auto

Profile: Graduate Trainee Engineer

Recruitment Procedure:

- Online test: This is similar to the online tests conducted by other core companies. The test was conducted on the CoCubes assessment portal and contained MCQs. It consisted of 4 sections –
    - Verbal: Reading comprehension, some analogy questions, and general verbal reasoning.
    - Analytical: Mental ability and Analytical reasoning. The questions were very straightforward. The closest analogy one can draw to these questions would be the mental ability section on the NTSE (easier than that though).
    - Quant: Simple problems that mainly employed elementary mathematical skills like ratio, proportion, data interpretation, interest, etc. which should not be a problem.
    - Technical: This section carries the most weightage (45/90 questions) and thus is probably more important than the other three sections. More weightage was given to second-year courses like AppT, IC Engines, MDD, Mech Sol, Fluid Mech, MatSci and ProdT. This test also had negative marking which made the test more difficult.
- Interviews: The shortlisted students were then split into two batches. Candidates from both batches proceeded to be interviewed for either one of the two following interviews.
    - Resume-based interview: Questions are mostly based on what you have written in your resume (projects, internships, and extracurriculars). Overall, be thorough with your resume and fluent in conversing with the interviewer. One thing which the interviewer was most interested in is the real-world impact of the work done in your projects/internships. Most of the candidates agreed that this was the easier round. Just don't fake anything on your resume.
    - Technical interview: This interview grills you based on your understanding of core courses. If you have a basic understanding of the mech CDCs and more importantly, remember details from them, this round shouldn't pose that much of a problem (but this is usually not the case). The interviewer likes to delve deep into topics you have mentioned on your resume or those related to your projects, so make sure you are confident with them. Some out of the box thinking will also be required. I remember having to design a mobile tower with

various external influences and explain how I would analyze it in ANSYS. Other than this some basic things to remember would be the Iron-Carbon diagram, Otto, Diesel, etc. graphs, heat treatment, gear design. This round was much more difficult.

- Once one of the two interviews was completed for all the students, students were shortlisted for the next round and the shortlisted candidates switched and appeared for the other interview + HR (very short). After this round, the final selected candidates were offered the job.

Sources of Preparation

- Be thorough with the mech CDCs. If not, go through the important facts and graphs once. GATE preparation would probably be quite beneficial for this purpose, though I did not have any experience with it.

Courses and Certification

- Though one might feel that being an automotive company, IC Engines would be given the most weightage, but this wasn't the case. Most of the questions were from MatSci (iron-carbon diagram, heat treatment is quite imp) and MDD (many questions about gears, belts, screws, etc.).

Other Relevant Information

- A few of the questions were about the recent advances in Bajaj's design, so go through the company's details for that information. The interviewers were also looking for any knowledge about EVs, so read up about them if you are interested.

Sector: IT

Name: Apurva Chaudhary (2016A1PS0783P)
Company: Cisco

Profile: Software Engineer

Recruitment Procedure

- ONLINE TEST: 2 coding questions, quant based MCQs and some MCQs related to Networking and DSA
- INTERVIEW: Those shortlisted were called for interview. There were four rounds of interviews (3 Technical + 1 HR).
- 1st technical round: Tell us about yourself. In depth discussion about projects from resume and follow-up questions. Linked list-based question was asked. Some questions about Machine learning as it was mentioned in my resume.
- 2nd tech round: An in-depth discussion about one project of my choice. Some questions to check my knowledge of C and Python(these were the languages mentioned on my resume).
- 3rd tech round: Questions based on basics of DSA, coding question on BST. Different layers of OSI model. Difference between doubly and singly linked list, time complexity in hashmap and BST
- HR round: Why cisco? If you have 100 min what project would you undertake? Any plans for research.

Sources of Preparation
- GeeksForGeeks
- Interviewbit

Courses and Certification
- DSA
- OOP, Networking

Sector: IT

Name: Denson George (2018H1030133P)
Company: Cisco

Profile: Software Engineer

Recruitment Procedure

- Online Test, Technical Interview, HR
- Online Test had 2 sections**:**

  1. Coding Question- First question was a DP question based on finding the maximum value of the expression by optimally parenthesizing the expression. Second question was a easy question that most of the people could solve using a priority queue or a map.
  2. This section consisted of easy aptitude questions and technical questions.
  3. Total 95 students were shortlisted for the next technical round.

- Technical Interview:

  1. There were two technical rounds conducted. First round was a purely technical round while the second technical round was a bit managerial and revolved around the projects in the resume.
  2. In the first technical round, I was asked to write code to find if a linked list is a palindrome or not. I suggested that we could reverse the linked list from the centre of the list then we could easily detect it. He wanted a solution which could help in the above detection in a single pass without counting the nodes of the list. The other interviewer asked me about the OSI model, the different layers and its usage in real life. Again we were back to algorithms, I was asked to find the number of rotations of a given input string given both the original and the input. I suggested an algorithm for this and the interviewer was happy. Then the interviewer asked me to write a program to count the number of zeroes in a factorial. I was able to give an approach/intuition of the solution, the interviewer was reasonably pleased.
  3. In the second technical round, the interviewer was the director of a BU. He asked me questions related to generics in Java. He then moved on to ask about Reflection in Java. This was because I wrote Java as a skill in my resume. He asked me to write a program to find if two strings were anagrams of each other. I solved it using a character array having 256 characters. He asked me how you will handle encoding other than ASCII. I told we can use HashMap. He asked me questions

about the different modules of the project that I had done as part of my course. He also asked me questions related to my work experience.

4. The third round was HR round. She asked me standard HR questions like why cisco and so on. She asked me if I was available for PS with the company and gave me other details about my job profile.

Sources of Preparation: Geeks for Geeks , Interview Bit.

Sector: IT

Name: Gautam Shashishekhar Pathak (2016A7PS0134P)
Company: **Cisco**

Profile: Engineering-Web/Software

Recruitment Procedure

Coding test: There were two coding questions and some MCQ questions. MCQs were easy (data structures, logic, etc.). Doing coding and MCQs would be lengthy so manage your time accordingly.

There were four interviews-

1) Technical interview based on Resume – Interviewer asked me to explain a project of my choice.
2) Technical interview – Interviewer asked questions on basic Data Structures like arrays linked lists etc. Also asked for a short intro. of myself.
3) Technical interview – Interviewer started by asking me basic questions about caching, computer architecture. Then moved on to a use case scenario involving caching in multicore processor. Ask for clarifications wherever necessary. Also asked a few questions on networking – tcp, udp, addressing.
4) HR interview – Interviewer asked me a case based question. Given an infinite amount of money and power but not time, what would you do? Follow up questions to whatever you answered.

Sources of Preparation

Leetcode, GeeksForGeeks, Hackerrank

Courses and Certification

DSA, Networking – revise concepts.

Other Relevant Information

It is advisable to revise networking.

Sector: IT

Name: Jitvan Himanshu Shukla (2016A7PS0083P)
Company: **Cisco**
Profile: Software Engineer

Recruitment Procedure

● **Online Test:** 2 coding questions + 15 MCQs. Coding questions were of medium difficulty and the MCQs mainly covered DSA(trees mostly) , Computer Networks, Probability and Math questions. ●
Technical Interviews: I had 4 Technical interviews(some of them had HR questions also) + 1 HR:

1. The first Interview was only technical. First I was asked a bit Manipulation question, then a linked list question, then a tree traversal. I had to write code for all of that. Then he asked me about Traceroute (Networks), process scheduling, static variables and dynamic memory allocation. Finally He asked me a probability question.
2. The second Interviewer focused more on HR questions. e.g. "What would you do if you had a bad manager?" Then He asked me my favourite topic in Networks(I said Network layer) and asked me 3-4 questions on that.
3. The third interview was only technical and He focused only on Computer Networks(Transport Layer, IP, Traceroute) and Operating Systems(Scheduling, synchronization).
4. The fourth interview was the hardest. The interviewer asked only very advanced topics in OS and networks but He expected me to tell only an approach to these problems, not the exact solution. He only wanted to know my thinking process and my ability to solve difficult problems. One example being, "What's the most vulnerable part of the process of accessing a website?". (Ans: DNS) and "How to make DNS attack proof?"
5. HR round was short and standard questions like "Why Cisco?" were asked.

Sources of Preparation
GeeksforGeeks, OS and Computer Networks Textbook and slides.

Courses and Certification

Data structures and algorithms, Operating Systems, Computer Networks, OOP

Other Relevant Information

- For the coding round, solving placement preparation questions on GeeksforGeeks and InterviewBit is enough. But do practice a lot and make sure you solve questions under timed conditions.
- Please note that only DSA is not enough to crack interviews. Revise OS, OOP and Networks thoroughly.
- When difficult questions are asked, don't stay quiet for a long time, keep suggesting possible approaches to the interviewer and let them understand your thought process.
- Cisco loves Networks! (Obviously), so give more importance to Networks. It won't be a problem if you have done the course properly.
- Be ready for HR questions. Listen to the pre-placement talk properly to get answers to HR questions.

Sector: IT/ET

Name: Kanika Agarwal (2018H1120286P)
Company: Cisco
Profile: Engineering

Recruitment Procedure

Round 1:

2 coding questions and some basic aptitude and Gate level questions
95 students were shortlisted.

Round 2(Managerial Round):

1. Basic tell me about yourself.
2. Difference between TCP and UDP
3. Explain TTL and where is it used?
4. Explain Trace Route
5. Explain ICMP
6. IP header
7. Real-life situations where TCP and UDP are used.
8. Explain Sliding window protocol
   Some situational questions

Round 3(Technical):

1. Reverse a Linked List
2. Return the last bit of a number
3. Given a number, extract bits from an m position to n position and convert it into decimal
4. find the middle element in a Linked List
5. Find the nth node from the last in a Linked List using only one traversal.
6. Fragmentation in IP packets
7. Explain TTL
8. The default value of TTL
9. IP header
10. Different forms of Inter-Process Communication
11. In a Doubly Linked List store both the next and pre-address at the same memory locations (use Xor Linked List)

Round 4(Technical):

1. Explain one of your projects.
2. Basic C questions like malloc, calloc, volatile keyword, etc.
3. Implementation of Hashmap, HashSet, Hash-Bucket.
4. The language that you prefer to code
5. If you have ever worked on Linux

Round 5(HR):

1. Go through your resume
2. If you are okay re-allocating to Bangalore
3. if you are available for a 6-months internship.

Sources of Preparation
GFG, InterviewBit
Gate Notes

Other Relevant Information

- Know your basics well. They do not test you for advance knowledge but how good you are with your basics.
- Be honest about what you know and don't know
- Be well versed of your resume.
- Be confident about your projects. However good you are with your technical knowledge, if you cannot defend your projects everything goes back to zero.
- Have confidence, be comfortable with the interviewer.

Sector: IT

Name: Mihika Naik (2018H1120270P)
Company: Cisco

Profile: Software Engineer

Recruitment Procedure

Received PPO after doing summer internship.

Recruitment Procedure of summer intern:

1. Online Test: Fairly easy. Comprised of aptitude questions and technical questions on OS, CN and DS. Technical questions weren't very calculation intensive, mainly conceptual. If you have done these subjects before, a quick revision would be enough.
2. Technical Interview: They picked the first project on my resume which was on networks. They asked questions specific to that then the questions grew more generalised covering different topics like TCP, UDP, and network layer with a special focus on routers and configuring them. Some of the questions: What problems do you see in TCP? How would you implement these changes? What is the use of VLANs? How are they implemented?
3. Second Technical Interview: Questions on C and Data Structures: Linked List, Queues and Trees were asked. This also had some critical thinking questions. Some of the questions: What is memory layout of a C program? Where are local and global variables stored? What is a self-referential structure, give some examples and their implementations?
4. HR Interview: This was just a brief talk. They asked a little about my background.

Sources of Preparation

1. **Computer Networks by Forouzan**
2. **Geeksforgeeks for C and coding**

Sector: IT

Name: Pranjali Mogre (2018H1120282P)
Company: **Cisco**

Profile: Software Engineer

Recruitment Procedure :

- Online Test, Technical , HR
- Online test conducted on hacker rank had 2 parts : Programming and MCQs. 70 minutes for 2 programming questions and 15 MCQs.
- Technical Interview 1

  1. Basic programming questions mostly based on arrays and linked list.
  2. CN: Routing protocols, DHCP, DNS, and other basics.
  3. DBMS: Queries.

- Technical Interview 2

  1. OS: Deadlocks : Detection and Prevention.
  2. About Projects.
  3. Dbms indexing and consistency protocols.

Sources of Preparation : GeeksforGeeks for both programming and technical subjects.

Courses and Certification : None

Other Relevant Information : Prepare your resume well. Gate Syllabus is enough for technical. Read puzzles from interviewbit or geeksforgeeks.

Sector: IT

Name: Sanchit Shrivastava (2016A7PS0072P)
Company: Cisco

Profile: Software Engineer

Recruitment Procedure

- Online Test, 3 Technical Interviews, HR Interview
- **Online test** had 2 coding questions, and multiple MCQs (On Computer Networks, DSA, OS, OOP and Aptitude questions) on hackerrank.
- 1st coding question- https://www.geeksforgeeks.org/minimum-maximum-values-expression/ , maximum value was asked, and '-' (subtraction) was also allowed. The question was similar to matrix multiplication DP problem.
- 2nd question involved use of queue and the question was pretty easy, required close attention to edge cases though.
- MCQs were of basic and medium level difficulty. It is important to maintain speed to finish all questions.

Overall 95 (yes, 95!) students were shortlisted for technical interviews (partially correct coding questions and MCQs were enough to get shortlisted)

Technical Interviews-

1st- The interviewer asked me questions about computer networks (OSI Model, DHCP, ipv4 vs ipv6 and few more), OS (what does OS do, memory management), a simple puzzle, discussed a little about the compiler construction course project mentioned on my resume.

2nd- He asked me about my favourite subject and as I mentioned DSA, he first asked a few questions regarding that- different sorting algorithms and their time complexity, a simple question on matrix rotation and a tree traversal problem. He discussed a little about my summer internship at Samsung and PS1 project as well, and then asked different ways to reduce strain on a server if more users connect to it. I mentioned a few approaches like master-slave, cache, distributed systems etc. He was happy with the answer.

3rd- Since the interviewer was running short on time as they've had way too many interviews that day, he asked me just 1 problem- producer consumer problem (OS), He wanted me to code the solution without using semaphore and using circular array for message passing. I wrote the pseudo code on a paper and he was fine with it.

HR Interview-

This was like a formality wherein the HR asked about my past experiences and what companies I've worked in. That's it.

Sources of Preparation

- Interviewbit and geeksforgeeks for coding practice.
- GateSmashers (Youtube) for OS and Computer Networks
- Gfg for OOP and DBS revision.
- Gfg archives for the company helps a lot. Make sure to go through them before the online test and interviews.

Courses and Certification

- Data Structures and Algorithms, Computer Networks, OS, OOP, DBS(not so much)
- No certification was required as such

Other Relevant Information

- Make sure to revise OS and Computer Networks and OOP Concepts.
- DBS wasn't asked much in the placements, Oracle did ask to normalize a table though.
- Multithreading and multiprocessing was asked in a lot of interviews.
- Linked list and tree traversal problems are asked the most in technical interviews. InterviewBit is a good enough resource for these topics. Revise heap and AVL trees as well.
- Most of the interviewers are very helpful, so just be confident and try to answer the question best to your capabilities. Don't sit silent in the interview; try to explain your approach.

Sector: IT

Name: Shiva Tripathi (2014HS400401P)
Company: **Cisco Systems India Pvt. Ltd., Bangalore**

Profile: Software Engineer – Engineering profile

Recruitment Procedure

- Round1: Online Test, consisted of 2 programming questions for which code had to be written and some MCQ's based on general aptitude and basic networking. One of the programming questions was related to 2D array with moderate difficulty while the other involved DP approach.
- Round2: (around 1 hour technical interview)

  ➢ Interviewers asked me to explain one of my projects, I explained them my project related to Device Drivers and got to know they were looking to hire people for this and IoT domain.
  ➢ Next part of the interview was based on questions related to Linux, OS, Scheduling, RTOS concepts, virtual memory, paging, use of TLB, MMU (how are these implemented for embedded applications)
  ➢ I was asked to write codes for: Some Linked List based questions (based on traversing), compiler optimizations, use of const & volatile keywords, code to find if machine is little/big endian, array reversal (including byte reversal), one DP question
  ➢ Questions on memory layout in C, and pointers like syntax for pointer to function, pointer to array, array of pointers… etc. (practice them well)
  ➢ Questions on process synchronization (when are spinlock and semaphores used), interrupt and process context in Linux
  ➢ Towards the end, interviewer asked me to come up with a product that I would like to develop, and explain what hardware and software resources I would use. I had done a project on biomedical engineering field in my BE, I built onto that and clubbed it together with the knowledge I had gained from my different projects. The interviewers seemed impressed with my answer.

- Round 3: (technical interview with Manager, went for about 40 mins)

  ➢ Asked my expectations from Cisco, I stated my interests specific to embedded and Drives profile along with the projects on my resume
  ➢ Differentiate between an OS and RTOS (from implementation point of view). How can we change Linux to an RTOS, if it is not already
  ➢ Differentiate between RISC and CISC processors by taking examples of processors available in market. Asked me which one I preferred, I explained him my answer by taking different scenarios. The interviewer was checking how good I am with current industry trends. The

discussion later went on to the history of x86 and earlier Intel processors. He seemed happy to know that I was well updated in this domain.

➢ Again some in depth questions on ISR, system calls, interrupts. Asked me to write a userspace code and then explain how it works in Linux

➢ Explain in detail all the steps involved: starting from pressing of a key on the keyboard to the value of character appearing on the monitor. This question pretty much covered most concepts of embedded, OS and drivers.

- Round4: (HR)

  Didn't last long and no typical HR questions were asked. They asked me about my day and if I know about the work which I would be assigned. I was given some overview of the internship, stipend for PS, and relocation to Bangalore.

Sources of Preparation

Practice C basics well (geeksforgeeks worked for me), also try to give MCQ tests based on C. For device drivers and embedded systems the course content was enough (Devesh Sir Lectures). Try to have some idea about network drivers for Cisco. Solve data structures and bitwise operator questions from geeks. Hennessy & Patterson book for computer architecture and memory hierarchy concepts. For OS be thorough with the basic concepts and have some idea about their implementation in Linux.

Courses and Certification

For M.E. Embedded System students, Device Drivers elective was compulsory.

Other Relevant Information

Make sure you let the interviewers know about your interests and what you are expecting from the company and be very strong in your field of interest (in terms of basics and current industry scenario).

Cisco for us hired for two profiles: engineering and customer experience. I was being interviewed for the engineering profile.

Sector: IT

Name: Vaibhav Kaushik (2018H1030128P)
Company: **CISCO**

Profile: Software Engineering Intern (PPO offered)

Recruitment Procedure

1. Online Test:

There was a 1 hour online test which included a total of around 50 questions from aptitude, reasoning and GATE level technical questions from Operating Systems, DBMS, Digital Logic Design, Data Structures and Algorithms.

2. Technical Interview:

- This round comprised of questions from Data Structures and Algorithms, specially Linked List, Stack, Queues, Graphs and Trees. All the questions asked were the either the basic questions available on Geeks for Geeks or a variant of these.
- Other questions asked included Computer Networks and OS concepts. Interviewer also asked me details and explanation about my projects.

3. Techno-Managerial Interview:

This interview didn't included any technical questions, but it was more of a casual talk about my future prospects, how my life has changed after joining BITS, what do I expect from company etc.

Overall experience of this round was awesome, we (me and interviewer) had a really good talk.

4. HR Interview:

Final round was HR, so it had all questions that HR asks, example:

- Why you want to join CISCO
- Why you consider yourself more apt for job than others?
- Strengths/Weakness

And others like that.

Sources of Preparation

Geeks for Geeks, Data Structures and Algorithms Made Easy By Narasimha Karumanchi, GATE Notes.

I also had continuous touch with Competitive Programming on platforms like Codechef, HackerEarth, HackerRank, Codeforces.

Courses and Certification

Not required as such.

Other Relevant Information

I will suggest keep your technical concepts clear, keep doing programming and be sound with data structures and logic development, also have a good understanding of your projects.

Sector: IT

Name: Vatsal Jignesh Badami (2016A7PS0071P)
Company: Cisco

Profile: Software Engineer

Recruitment Procedure

- Online test, 3 technical interviews, HR
- Online test had around 15 MCQs (logical + technical) and 2 coding questions.
- **Technical interview 1:** Was asked questions based on bit manipulation, linked lists, pointers and code debugging. The difficulty of questions kept on increasing gradually.
- **Technical interview 2:** Was asked to design a data structure to insert and delete records in constant time and maintain sorted order based on time of access. The approach involved using hash table and doubly linked list. We also had a discussion on scheduling and I was asked to design a scheduling technique.
- **Technical interview 3:** This round was based on Resume discussion. It was conducted by one of the senior-most person of the panel. We had a discussion of the projects and internships completed. There was also a non-technical open-ended question at the end - "What would you do if you had infinite time, money and resources?".
- **HR:** Easiest of all. Was asked if I had any problems with the job location and any doubts in the pay structure.

Sources of Preparation

GeeksForGeeks, revision of CDCs from lecture slides/class notes.

Courses and Certification

Computer Networks, Data Structures and Algorithms, Operating Systems

Other Relevant Information

If you are comfortable with Computer Networks, then well and good. Otherwise, make sure to inform the interviewer that you are not comfortable, whenever asked.

Lot of focus was given to bit manipulation and pointers in first round. Make sure to practice some questions on these topics.

Sector: IT

Name: Yash Ratnani (2018H1120264P)
Company: Cisco

Profile: Software Engineer

Recruitment Procedure

- Online Test, Technical Interview, HR
- Online Test had 2 sections**:**

  1. Coding Question- First question was finding the maximum value of the expression by optimally parenthesizing the expression. Second question was an easy question that most of the people could solve using a priority queue or a map or just by sorting.
  2. The next section consisted of aptitude and technical questions.
  3. Total 95 students were shortlisted for the next technical round.

- Technical Interview:

  1. There were two technical rounds conducted. First round was purely technical round while the second technical round was a bit managerial and revolved around the projects in the resume.
  2. In the first technical round, I was asked to write code to find a loop in the linked list. I solved it using Floyd's cycle finding algorithm, Then the interviewer asked me to programmatically identify if the given matrix is Symmetric. Then he asked me to write code for Tower of Hanoi problem, some questions related to HTTP and its stateless nature. He also asked me to write a program to identify the midpoint of a linked list in a single pass. The interviewer also asked me questions related to AWS as I had work experience related to it. After this, some questions related to Computer networks (MPLS and some other questions) were asked.
  3. The second Technical Round started off with "Tell me about yourself". He then asked me questions related to templates in C++, write a program to find the post order traversal of a binary tree. He asked me about a project that I had done as part of my course. He also asked me questions related to my work experience especially about my work on AWS.
  4. The third round was HR round. Some standard HR questions were asked. Then I was asked if I was available for PS with the company.

Sources of Preparation:

- Geeks for Geeks and Narsimha Karumanchi for Data Structures and Algorithms.
- Coding: Interview Bit and Geeks for Geeks.

Courses and Certification: None

Other Relevant Information:

- Prioritize your best projects in the resume and be thorough with it.
- Mention only those subjects in which you are confident, I was asked about each and everything that I had put in my resume.

Sector: IT

Name: POORVA CHAUDHARY (2018H1030121P)
Company: DELL

Profile: Firmware engineer

Recruitment Procedure

- Online test-aptitude, Operating system and Computer networks questions.
- Test was easy. However, it is important to maintain speed to attempt as many questions as possible.
- There were three rounds of interview: Technical, Managerial, HR
- Technical interview was primarily focused on knowledge about computer networks (network programming) and Operating System.
- Concepts of C language (malloc, calloc, preprocessor, build steps, preprocessors, pointers, pthreads) were also asked along with a code for AVL tree balancing.

Sources of Preparation

- GeeksForGeeks

Courses and Certification

- DSA, OS, CN, OOPS

Sector: IT

Name: SAYALI NIKAM (2018H1030141P)
Company: DELL TECHNOLOGIES

Profile: Firmware Engineer

Recruitment Procedure

Online Test, Technical Interview, MR, HR

- **Online Test**: Test had 2 sections consisting of 60 questions, 15 from Quantitative Aptitude and 45 Technical MCQs. Test was of moderate to easy level. Questions were mostly from OS, DBMS, Data Structures, Computer Networks, UNIX, and C Output based questions. Aptitude was tricky and quite time taking. It is suggested to attempt technical section first. The key to clear this round is to attempt a fair number of questions with good accuracy.
- **Technical Interview**: In this round interviewer asked me about my projects. He was expecting me to write the code of core part of a project. Few questions on previous job experience. Later he asked me questions on Socket programming and OS concepts like system calls, background processes, types of daemon processes, detailed working of phases of compiler. Few questions on linked list, C concepts (memory management) difficulty level was moderate. Some questions on Computer networks were asked like 'Explain the working of DHCP, ARP', etc.
- **Managerial Round**: Introduce yourself. Asked few questions regarding my previous job. Later asked me to explain favourite project. Questions like why Dell and what are your ambitions, tell me about your strength and elaboration on that etc. Basically, he was trying to test my confidence and decision-making capabilities by giving different scenarios.
  Tip to clear this round: Be honest and confident about your answers. Don't lie, it can backfire on you.
- **HR Round**: Casual talk. Asked about my journey in BITS so far, my interests and hobbies apart from studies.

Sources of Preparation
- InterviewBit, GeeksForGeeks (MUST DO Coding Questions), GATE NOTES(for technical),Articles on GFG were also quite useful, Mock Tests and quizzes from GFG(for technical subjects), Aptitude can be prepared from any standard source(I followed PU's Online Aptitude Test Series), puzzles on InterviewBit.

Courses and Certification

- Codechef Certified Data Structures and Algorithms Programme (CCDSAP Codechef)

Other Relevant Information

- Start practicing MUST DO Coding questions on GeeksForGeeks and afterwards you can go for InterviewBit. If you have prepared well for GATE, then nothing much is required for technical questions. Revise the concepts and give quizzes on individual topics. This will help you improve accuracy and speed.
- Prepare your resumé carefully, and be very thorough with it. You should be able to describe every line on your resumé in depth.

Sector: IT

Name: MEHTA AASHAY PINKESH (2016A7PS0079P)
Company: EdgeVerve

Profile: Member of Technical Staff

Recruitment Procedure

1. Online Test: 3 coding questions to be completed in 3 hours. One was of medium difficulty and the other 2 were easy.

2. Technical interview: The interview was entirely based on the resume. The interview asked in-depth questions about the projects done.

3. HR Interview:
   a. Tell me about yourself
   b. Follow-up questions from the above.
   c. Summer internship experience.

Sources of Preparation
Geeksforgeeks, InterviewBit

Courses and Certification

None required.

Sector: IT

Name: Gouranshu Grover (2018H1120279P)

Company: G.E. Digital

Profile: Software Engineering Specialist

Recruitment Procedure:

1. **Online Test:** The online test had **3 sections**. First section comprised of 2 coding questions to be done in 45 mins. Second section contained 30 MCQs of computer science fundamentals to be solved in 30 minutes. The third section had 50 MCQs (20 Quant, 20 Logical Reasoning, and 10 English) with a time limit of 50 minutes.

2. **Technical Interview I:** I was shortlisted for both EEDP and Digital profile and had one technical interview for each profile. The first round of technical interview was conducted by the EEDP panel. The round began by brief introduction and then the interviewer asked me to list down all the subjects I had studied in my M.E. degree so far along with a brief discussion on the content studied in each of these subjects. Following this, some coding questions were asked including a couple of questions from Linked Lists, find missing number in a given array containing numbers from 1 to N, find repeated number in a sorted array containing numbers from 1 to N. I had mentioned C, C++ in my resume and I was asked various questions from it like 5 differences between C and C++, types of variables in C along with their usage, scope and lifetime constraints, C input output questions related to pointers, scope resolution operator, const var and pointer to const, etc. After that Object-oriented questions were asked related to encapsulation, inheritance, overloading vs overriding, can a constructor be private? Ans: Singleton Pattern. Also another question was asked to all the candidates related to Factory Pattern. In the end they asked a few questions on DBMS related to one to many relationship representation (ER diagram) and then asked an SQL aggregate query on the same. This round lasted for 1 hour.

3. **Technical Interview II:** This round was conducted by the G.E. Digital division panel. The round began by discussion on resume. Some projects and internship experience were discussed in detail. A lot of situation based questions were asked throughout the discussion like dealing with a scenario when you were not able to complete the task within the deadline, challenges faced during internship, situation when your work had some dependency with someone else's work, etc. Also, a hotel reservation based design question was asked which involved discussion on the various classes which would be involved and their interaction along with the ACID properties of any transaction made. A follow up question on dynamic pricing of the hotel prices was also asked. This round lasted for 35-40 minutes.

4. **HR Interview:** Common HR Interview questions were asked to understand your career goals, your perspective in life and what kind of a person you are, how you deal with various real-life work based and personal scenarios, etc. Try to be prepared for such questions in advance and write them down to avoid any long awkward pauses during the interview. Advance preparation would also help you remain calm and confident during the HR round which is very important.

Sources of Preparation: Coding topics from InterviewBit, GeekForGeeks, LeetCode (did most of the topics from IB and GFG Must Do Coding Questions). Try to practice some questions from all topics and also practice some mock tests on LeetCode, Hacker Earth and GFG's contests. This would make you familiar with various test environments and also solving questions within time limit which helps a lot during coding rounds. Do not neglect OS, OOPS, CN and DBMS as many questions would be asked from these topics during the interviews. Also be familiar with everything mentioned in your resume as the interviewer may ask anything from it, especially the projects and internships (in detail).

Courses and Certification: Nothing particular as such. Studied Object Oriented Design, Software for Embedded Systems and Data Mining as part of the course curriculum.

Other Relevant Information: Be attentive during the company's PPT and/or do some research on the company before interviews. Use this information to ask relevant

questions from the interviewer at the end of each round which would definitely give a positive impact to the interviewer and reflects your interest in the company. Also, if you don't know any answer, try to remain calm and think about it for a while and answer to the best of your capabilities or ask the interviewer for any hint. It gives an impression that you don't give up easily without trying.

Sector: IT

Name: Saurabh A. Wankhade (2018H1120267P)
Company: GE
Profile: Edison Engineering Development Program (EEDP)

Recruitment Procedure :

- Online Test Consisting of 3 sections.
    - Coding : Platform used : CoCubes. Basic questions on trees.
        - http://bit.ly/pu_chron_ge1
        - http://bit.ly/pu_chron_ge2
    - Technical MCQ : GATE Level Questions were asked
    - Aptitude : There were questions on Time and work, Comparisons, Coding Decoding.
      http://bit.ly/pu_chron_ge_apti1
- Next were the Interviews.
    - The I round was technical, asked basic questions on OOP, DBMS. Questions on Vtables, vpointers, Design patterns, private constructors etc.
    - II round for me was telephonic, the interviewer asked me to explain my resume. Why M.E ?, why did you leave the previous job.
    - III round HR, why M.E.?, what makes a job satisfying for you , what doesn't.

Sources of Preparation

GeeksForGeeks - Must do and Puzzles, Design Patterns from Refactoring Guru and Source making, C++ Primer (Stanley Lippman), Make sure you do Code Monk from Hackerearth. If you are new at programming do Hackerrank easy first, cover all topics for easy first. Codeforces. R.S Aggarwal for Aptitude and Verbal/Non-Verbal. For GATE Level Questions use the GateOverflow book.

Other Relevant Information

I think having Contributed to an OpenSource project is a big plus. If you have time and motivation try contributing towards it.

Sector: IT
Name: Subham Kumar (2018H1030123P)
Company: General Electric

Profile: Healthcare (application of AI in medical diagnosis)

Recruitment Procedure

1. Screening test (online); 3 sections, coding (2 questions; 50 min; basic data structures like trees and stacks), computer programming (Object oriented programming, Data structures, C programming, networking) and aptitude test.
2. Technical Interviews (02): 1st interview OOP concepts, computer networks, DSA and C programming. 2nd interview was about the application of machine learning and deep learning techniques in the domain of medical imaging and relevant projects. Grilled about why not go for higher studies.
3. HR interview: Why do you want to join GE? Why not go for higher studies? How is your present work related to the work they are doing? What if you don't get what you are expecting?

Sources of Preparation:

1. **Geeks for geeks for brushing up on OOP, DSA, Networks and C programming (very basic questions were asked in the interview as well as the test)**
2. **They are looking for something related to the medical field; past projects/experience in the domain of medical imaging is immensely useful.**

Courses and Certification

None

Other Relevant Information

Sector: IT
Name: Ashutosh Birla (2015A7TS0092P)
Company: Impact Analytics

Profile: Data Scientist

Recruitment Procedure

- Online Test:
  - Consisted of aptitude questions and a simple coding test (probably because the profile is data scientist)
- GD:
  - It was the most fun GD I've ever had. The situation was we were a group of astronauts who had crash-landed and gotten stuck on moon with only a few supplies. The rest was a discussion about how to survive under some given constraints.
- Interview:
  - The interview started as usual (something about yourself).
  - They went on to ask about the projects I had done, some more aptitude questions, and my general interest.
  - Most importantly, I believe, they were looking for enthusiasm to work with the company. Don't try to fake it.

Sources of Preparation

- Coding preparation is not much. It was a simple test to know if you know how to code (No DSA or OOP)
- And for aptitude, you can find any number of resources online.
- For GD, you should know the basic etiquettes and the interview requires some preparation for the HR questions.

Courses and Certification

- None. I had already done the Foundations of Data Science and Machine Learning courses. But I would've been fine regardless.

Other Relevant Information

- Know the company and profile which you are applying for.
- Be confident during the interview. Being the first attempt at getting a job, they are more interested in your enthusiasm for working than your actual skills. So, fret not.

Sector: IT/ET
Name: Anupa Ann Jacob (2018H1030142P)
Company: Intel

Profile: Software Engineer

Recruitment Procedure

- Selection process - Resume shortlisting, Technical Interview, HR Interview
- Technical Interview covered basics of Operating Systems, Computer Networks, Distributed Systems and Machine Learning. In addition to these, I was asked to write a function to display the count of each of the input substrings to a given string. I was also asked questions on my previous work experience in Oracle and why I decided to leave the job there.
- HR round did not last very long and mainly consisted of a discussion on why Intel.

Sources of Preparation

- Geeksforgeeks
- Textbooks of various subjects like OS, CN

Courses and Certification

- Design and Analysis of Algorithms, Data Structures and Algorithms, Operating Systems, Machine Learning, Network Programming.

Sector: IT
Name: Gurjeet Singh (2016A3PS0234P)
Company: Microsoft IDC

Profile: Software Development Engineer

Recruitment Procedure

- First round consisted of an online test which had 3 questions.
- Second round was a group-fly round. We were given 2 questions to solve within 1 hour. Those who were able to solve at least one question qualified for the next round.
- The next round was based on coding questions. I was asked two questions. First question – We are given an undirected graph with N nodes and initially there is no edge in the graph. We are also given an array of edges with time at which the edge is added. At one point of time, only one edge can be added. Find the minimum time when the graph becomes connected.
- Second question - https://www.geeksforgeeks.org/nuts-bolts-problem-lock-key-problem/ . I was asked to write the code for the first question. For the second question, it was sufficient to explain the approach.
- This round consisted of one coding question (zig zag traversal of a binary tree), some OS related questions (mostly related to synchronization) and system design.
- Final round was a mix of HR and technical questions. This round involved some basic HR questions, one code debugging question and in-depth discussion on one of my projects.

Sources of Preparation
 Leetcode, Interviewbit, Geeksforgeeks

Courses and Certification

DSA, OOP, Operating Systems.

Other Relevant Information

- Prepare Graphs, Dynamic Programming, Trees and Greedy thoroughly.

- In a group-fly round, it is important to first explain your approach to the invigilator allotted to you and once he is satisfied with your approach, then start writing the code.

Sector: IT

Name: Shah Neel Kaushik (2016A7PS0076P)

Company: Microsoft

Profile: Software Development Engineer

Recruitment Procedure:

1. First round: An **online coding test** (hosted on mettl.com), consisting of 3 questions: one on simple integer manipulation, one on recursion (Depth - or Breadth - First Traversal) and one on recursion (using DP). There were separate test cases for evaluating time complexity, basic cases and corner cases.

2. Second round: A **group-fly**; candidates were divided into groups of 8, and had to solve 2 questions. The first was to search a number in a spirally sorted matrix, and the second was to store and retrieve tuples of strings based on some conditions. One had to write complete code (on paper) and also explain one's approach to the invigilator.

3. Third round: **Technical interviews**; I had four interviews:

   i. Design a chatbot without using existing services, followed by some related questions on string handling and data structures.

   ii. Handle an input stream and implement features such as fast-fail. I was also asked to design a game of chess using OOP concepts.

   iii. Design a data structure for a 'Notepad'-like application. I was also asked some straightforward questions on garbage collection and data structures.

   iv. Implement a UNIX system call in a language of your choice without using some pertinent predefined functions. Emphasis was given to Operating Systems concepts.

Sources of Preparation:

1. Prof. Shan Balasubramaniam's lecture notes for Data Structures and Algorithms

2. Prof. Sudeept Mohan's lecture notes for Operating Systems

3. Cracking the Coding Interview for some handy insights into solving coding questions

4. LeetCode for practising competitive coding (~ 200 questions)

Courses and Certification:

Data Structures, OOP and Operating Systems.

Other Relevant Information:

Fundamentals are of utmost importance. At each stage the focus was on approach and clarity of thought.

Sector: IT

Name: Parth Sethi (2015B3A70613P)
Company: Microsoft
Profile: Software Development Engineer

Recruitment Procedure

- **Online Test**
  - Conducted on Mettl.com

  - 3 Questions. Solving any 2 of them would get you shortlisted. I solved two and a few test cases for the third.

  - 1 Easy: Bruteforce.

  - 2 Medium: Don't remember the questions exactly but solved one of them using graphs.

- **Written test**
  - Two questions were to be solved in 1 hour. No STL/Libraries allowed.

    - Search for an element in a spirally sorted 2-D nxn matrix. Time complexity expected: O(Log(n)). No duplicates.

    - Design an efficient data structure to store and query the top k objects based on some given requirements. Don't remember the question exactly but we had to query for the top k frequently occurring items based on two keys. (The object was a 3-tuple with an ID and two "keys". Cannot use Heap/Map since you would have to code it yourself and it's just not possible to do that in the given time limit).

  - I was able to solve the first question in O(n) time complexity and wrote the code for it. For the second question, I only wrote the pseudo-code.

  - Discuss your approach with your assigned mentor before writing anything. Also, make sure to keep aside 15-20mins to write down the code. A lot of the students spent all their

time discussing and weren't able to write down the code properly. Try to write clean and readable code.

- **Technical Interview - I**
  - Based on DSA. Two questions. Both pretty easy.
    - Given a binary tree with each node containing an integer, determine which level of the tree has the maximum sum. (Think BFS.)
      - Write down your code after discussing the approach.
      - Write clean and readable code.
      - You'll be asked to modify your code based on certain constraints. (For eg. use only 1 additional integer variable.)
    - Given two linked lists where each node contains an integer, determine whether the second linked list is a SUBLIST of the first one.

- **Technical Interview - II**
  - Based on DSA. 1 question. Medium difficulty.
  - https://www.interviewbit.com/problems/word-ladder-ii/
    - I was also asked to code the implementation of the queue myself.
    - After I had done that, the interviewer kept adding constraints and additional requirements to the question and I had to answer them in 3-5 mins each. (There were around 3-4 variations).
    - I was also asked basic questions on DFS and BFS like - why did you use BFS and not DFS, time complexity etc.
  - I was only asked DSA in my two interviews, but a lot of the other candidates were also asked questions from OS. Make sure to revise that as well.

- **Final Interview**

  - Resume based.

  - I was asked about the project that I did in my summer internship (based on ML) at Myntra.

  - Only add projects in which you actually did something. You should be able to explain what you did in detail.

Sources of Preparation

- **Coding Blocks:** https://online.codingblocks.com/courses/data-structures-and-algorithms-online-course

  I only watched the videos and tried to solve the questions that were discussed in the video. Didn't do any questions on their portal.

- **Interview bit.** Solve this entirely. I can't stress this enough but most questions will be similar to the questions that you can find here.
- **Leetcode.** https://leetcode.com/problemset/top-interview-questions/ Solved all the hard questions in this list. Also, worth taking a look at the medium ones if you have time. Not really worth looking at the easy ones.
- **Revised** OS, DBMS, OOP (Multi-threading and basic OOP concepts). Mostly from youtube and lecture slides. https://www.youtube.com/channel/UCA6yfpYhy5sWMjRGOT-OAIQ for last-minute preparation.
- **Revised** basic machine learning concepts (Source: Andrew NG coursera) and the project that I had worked on in my summer internship.

Courses and Certification

- DSA
- OS
- OOP
- DBMS
- Machine Learning (Coursera)

Other Relevant Information

- Mention only those subjects in your resume that you have revised and know well. Nobody cares whether you had a C in that subject or an A.
- Quality over quantity when it comes to projects. It really pays to have at least 1 good project on your resume that you can explain in depth.
- Communication skills matter a lot too. Speak clearly and confidently but don't sound arrogant. Always discuss your approach with your interviewer. Even if you get stuck on a question, they'll give you hints.

Sector: IT

Name: Rahul Bothra (2016A7TS0015P)
Company: Microsoft
Profile: Software Development Engineer

Recruitment Procedure

- Received PPO Offer;

- Internship recruitment procedure included 1 coding round, 3 technical interviews

  - Coding round had 3 straightforward DSA questions.
  - Technical Interviews had 1 DSA Question each; Fully functional code to be written in C

Sources of Preparation
GeeksForGeeks and InterviewBit.

Courses and Certification
None.

Other Relevant Information

None.

Sector: IT

Name: Naman Todwal (2016A7PS0100P)
Company: Myntra
Profile: Software Engineer

Recruitment Procedure:

The recruitment process comprised of 4 stages: 1 online test and 3 technical interviews.

Stage 1: Online Test:

It was a coding round consisting of 4 coding problems and 1 SQL problem. Time duration was 90 min. Students complete 2 questions were shortlisted for the next round. Around 27 students were shortlisted for the interview process. Level of the coding round was moderate and questions were almost the same as InterviewBit questions with some tweaks and modifications.

Try to manage time accordingly as it wasn't possible to solve all the questions in the given time and thus select problems accordingly.

Stage 2: Interview Round I: Technical

The interviewer discussed my resume thoroughly for first 20-25 min and discussed about my summer interns and PoRs in detail. He even asked me to explain complete GST system in detail to test my general knowledge in finance (as I mentioned a bit about finance in my resume).

For the next 5-10 minutes, he asked a simple ad-hoc puzzle which was quite easy to solve. He asked one general coding question to test my command on recursion. I was asked to print 'Hello World' n^n times without explicitly calculating n^n and without using any library.

Stage 3: Interview Round 2: Technical

This round lasted for around 75 minutes. I was asked to explain my summer internships in detail and general discussion went around my resume points. He asked conceptual questions about hash starting from very basic and went on till a very complex system design problem (using hashing). This went for around 25-30 min. Lastly, he asked me to code an algorithm where a Uber/Ola cab is required to visit n destinations from a given starting point and thus minimizing total cost. I was further asked to optimize my solution.

Stage 4: Interview Round 3: Technical + HR

This round was taken by a senior Myntra Executive and lasted for around 60-70 min. He discussed my PS-I intern in detail for around first 20 min as it was also an E-Commerce firm wherein, he asked me about the technicalities and scope of my project. He asked me a few problems on data structures for the next half an hour.

Some of them were:

a. Discuss about all the sorting algorithms and rate them according to their complexity constraints.

b. Find the middle node of a linked list using a one-pass algorithm (same as InterviewBit problem).

c. Traverse a given binary tree iteratively. (Level Order Traversal)

He also asked some basic conceptual questions on OOP, DBS and Operating Systems. Some of these questions were:

a. Difference between threads and process, OS and Kernel.

b. Brief polymorphism and its various forms.

c. Some conceptual questions on views and transactions.

This was followed few HR related questions for next 10-15 min like:

a. Do you plan to pursue higher studies?

b. Where do you see yourself in the next 3 years from now?

c. Why Myntra?

Sources of Preparation:
InterviewBit (very important), LeetCode, GeeksforGeeks (for CS subjects and interview preparation

Courses and Certification:
  No requirement as such

Other Relevant Information:

Smartly draft your resume. You should be able to explain each, and every word mentioned in your resume. Read a bit about your projects and internships before appearing for the interview.

Do not panic if you're not able to answer the question asked by the interviewer. Always take a sort of help or hint if you're not able to crack anything, they'll always be ready to guide and help you.

Companies ask a lot of good conceptual questions on core CS subjects, be prepared for that.

Sector: IT

Name: Kunal Jain (2016A7PS0022P)
Company: Myntra
Profile: Software Development

Recruitment Procedure:

Three rounds, two technical and one technical + HR.

- In the first round, I was asked a math/coding question and we spent one hour approaching a solution.
- In the second round, a lot of topics were covered. Majorly, these were DSA, OOP, DBS, and OS.
- Main topics included trees, routing, OSI model, process/thread scheduling, semaphores/mutex, resource graphs, linked list vs arrays, priority queue, hash map, complexities, heap, sorting and their code, types of balanced trees, searching in binary trees, reader-writer problem.
- In the third round I was asked standard HR questions such as 'why Myntra', 'where do you see yourself in 3 years', 'what's your ambition', etc. They occasionally asked me to write the codes.

Sources of Preparation:
Interviewbit, Leetcode, GeeksforGeeks, you may also use Hackerrank, Codechef or Hackerearth.

Courses and Certification:

None required.

Other Relevant Information:

Practice coding and study the above mentioned four courses.

Sector: IT

Name: Arunima Ghosh(2018H1120272P)
Company: Netapp
Profile: Member of Technical Unit

Recruitment Procedure

- Resume Shortlisting, Online Test, Technical Interview, HR Interview
- Test had 2 sections:
    a. Coding - There were three questions. All were easy (No DP Questions). However, the time allotted was 50 mins only.
    b. Multiple choice - 30 questions in 30 mins. It consisted of technical questions, quant, fill in the blanks. Technical questions had questions from network, operating system, Unix etc.
- Interview Procedure - The number of technical interviews may vary from person to person.
    a. First Technical Interview
        i. Tell me about yourself specifying the projects and internships you have done.
        ii. Resume based questions- Many questions were asked from my projects. Since it was on distributed system, questions from spark, map-reduce, why spark was used, how is spark fault tolerant, various faulty situations given and asked how spark handles such situation.
        iii. Data Structure Concepts - Concept to sort generic data (tuples containing id, name, phone number) according to ID, complexity and procedure of the sorting algorithm used.
        iv. Numbers are given in the range 1 to 1000000, sort it in O(n). How to improve space complexity.

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v.Questions on SQL- How to reduce the complexity while writing SQL queries.

vi.Dynamic Programming Questions. Given a matrix of size N x N which contains some values, start from (0,0) and reach (N,N) along the path which will maximise the sum of the values (present along the path).

b. Second Technical + HR Interview

i. What questions did you like in the previous interview and why?

ii. Given a rectangle divide it into 8 equal parts, then 9 equal parts, then 11 equal parts. Why is dividing in 11 equal parts difficult.

iii. Questions on Bitwise manipulation, queue, stack.

iv. One Challenge you have faced in your life, what motivated you to overcome it.

v. Who all are in your family. How is your relationship with your mother?

vi. Who is your idol and why?

vii. What kind of work will you like to do in NetApp?

c. HR-Interview

i. What did you like/dislike about the interview procedure till now? Any suggestions.

ii. What kind of technology are you interested in.

iii. Why did you not intern at NetApp?

iv. Questions on co-curricular activities and pursuing M.E. from BITS.

Sources of Preparation

GeeksforGeeks, InterviewBit, Gate Notes for subjects, R.S. Aggarwal for Aptitude.

Other Relevant Information

Have at least three project and prepare at least two projects very thoroughly (Interviewers generally ask for one). Practice coding Dynamic Programming, Arrays, Queue, Priority Queue, Stack, Trees. Prepare subjects like Computer Network, Operating System, Data Structures very thoroughly (generally asked in all interviews).

Sector: IT

Name: Harsh Bhojani (2018H1030125P)

Company: NetApp

Profile: Member of Technical Staff

Recruitment Procedure:

Online Test, Technical round 1, Technical round 2, HR

- **Online Test:** First round was online test which was taken around a week before the interview, which consisted two sections. In first section, there were three coding questions, first was straight forward based on mathematical equation, second was on strings and hash-map, and was a little difficult than first one and third was on matrix based on greedy approach (can be solved with DP too) much difficult than first and second question.

  In second section, MCQs based on GATE CS like Computer Networks, Operating System, Computer Organizations, OOPS concepts, Unix and plenty of General Aptitude Questions (some of them were like puzzles) were asked.

- **Technical round 1:** This round started with basic OS related questions like. Then I was asked to write a code of Unix system calls: memcopy () and memmove(). After this I was asked to write a code for level order traversal of a binary tree. After this he asked me one more coding question based on linked list which was finding the merge point in Y shaped merged linked lists.
- **Technical round 2:** This round was bit technical, resume reviewing plus puzzles where I was asked questions based on the projects and some technical questions on array and linked list (different operations on these data-structures and their time complexity) and one brain teaser.
- **HR round:** This was only formal round and as HR asked me if I had any questions on my mind about the company and work culture and asked me about my future plans.

Sources of Preparation : As this was in February (for summer internship, later I got Pre-placements offer for the same), I didn't prepare much, but solved basic questions on GeeksForGeeks and did ample amount of questions on InterviewBit to brush up the coding skills in winter holidays.

Courses and Certification :
   Codechef Certified Data Structures and Algorithm program (CCDSAP Codechef).

Other Relevant Information :

- Start with "must do coding questions" on GeeksForGeeks along with your study (manage time for that ;-)) and then move onto InterviewBit.
- If you have prepared well for GATE then nothing much is required for technical based questions, revision of those concepts is enough.
- Be confident and explain everything clearly in the interview!

Sector: IT

Name: VIDIT JAIN (2016A7PS0064P)
Company: Nutanix
Profile: Member of Technical Staff

Recruitment Procedure

- Online Test, Debugging Round, Technical Interviews
- Online Test (Hosted on HackerRank) had 2 questions (heap and logical) and time given was 1.5 hours. Only those who had completed both the questions were shortlisted for the next round.

- In the debugging round, code for readers-writers problem (OS Synchronization) was given. We had to identify the bugs in the code and resolve them. Since the problem was the same last year, memorizing the code for all 3 synchronization problems is recommended.

- 2 Technical interviews

    - In the 1st interview, a 2-part graph question was given. The 1st part was an easy one, should be done in the 1st 15 minutes along with the code. The 2nd part was tough and evaluation was done on the method of approach towards the problem.

    - The 2nd interview was a System Design Interview. UPI system had to be designed.

- No HR interview

Sources of Preparation
- GeeksforGeeks, InterviewBit, Codeforces
- Grokking the System Design Interview

Courses and Certification

- CS, CDCs, Machine Learning

Other Relevant Information

- Discuss your approach with the interviewer, do not sit silently if you're not able to come up with a complete optimal solution to the problem given.

Sector: IT
Name: Abhilash Neog (2016A7PS0004P)
Company: Oracle

Profile: Software Development Engineer, Server Technologies

Recruitment Procedure

- Online Test, 3 Technical Rounds, HR
- Online Test had around 5 sections:
    a. Verbal/Contextual Communication – Mainly to check the candidate's fluency in English grammar and vocabulary strength
    b. Aptitude – Questions included - general aptitude questions, and basic math and probability problems.
    c. Programming – Questions in this section were majorly like – a flowchart of an algorithm, (say to sort an array of numbers using the mentioned logic) is given, with blank boxes in between. Need to fill them up. The other type of questions – given a code snippet (eg. insertion in AVL tree, radix sort) find the output (final or at any intermediate point)
    d. Data analytics – Statistical questions based on histograms provided.
    e. CS concepts – questions were from DSA, DBS, and OS.

    The test was overall easy. Each section had its timer, and question once solved cannot be viewed again.
- Technical Interview 1:
    - The questions asked were mostly from DSA and DBS. A tree is given, join all the leaves of the tree in a linked list style, from left to right. Few other questions asked were like count the no. of set bits in a binary number, check if a number is a power of 2 (use of bitwise operators required). Lot of questions based on bitwise operators are asked.

- In DBS, I was asked to draw an ER diagram, given entity sets and their relationship, and then convert the diagram to a database table. Was given a DB relation, and asked to find if it was normalized. If not, then normalize.
- Questions based on java were asked, which mostly revolved around main function, object calls, static keyword, JVM. Various puzzles were asked, like find the heaviest in a group of coins, etc.
- Technical Interview 2:
  - Questions were from Java multi-threading, DSA and DBS.
    - Multi-threading questions included, basic definitions, syntax, logical questions involving locks and objects.
    - 2 DSA questions were asked – reverse a linked list, and find a triplet in a sorted array such that they sum up to a given number, with optimized time complexity. Proper code was to be written.
    - 1 system design question was asked based on DBS. Design a database for a user portal having an owner and a number of viewers. Solution required designing relations using key constraints, identifying the correct PK and FKs, such that the querying time is less (having too many relations would require more joins, hence more time)
- Technical Interview 3:
  - Only OOP questions were asked in this interview. Definitions with real life usage of method overloading, overriding, inheritance, static keyword, etc. was asked.
  - Difference between interface and abstract classes, and when they are used. The interviewer was more interested in real-life examples of the concepts, rather than the definitions.
  - He also asked me to design the UML diagram of an inheritance example I mentioned.
- HR Interview:
  - General questions like, tell me about yourself not mentioned in the resume, why do you want to join oracle, why should we hire you, what is the probability that you would get selected. Was also asked to describe all my projects mentioned in

the resume, with basic questions here and there like, the difference between deep learning and machine learning.

Sources of Preparation

- GeeksforGeeks and InterviewBit for coding practice, Gfg and course slide for DBS, OOP from javatpoint.

Courses and Certification

- The important courses are: DSA, DBS (special emphasis on Normalization, key constraints, ER modeling, SQL), OOP with multi-threading basics

Other Relevant Information

- It is very important to have a confident outlook in front of the interviewer. There shouldn't be too much confusion and hesitation while answering.
- Take some time instead, but answer confidently. Pen and paper coding practice is a must.
- It is very necessary to explain each and every step to the interviewer (even if the interviewer does not ask so), as they keep noting down the candidate's approach towards a problem.

Sector: IT

Name: Arth Abhinav Rohatgi (2016A3PS0239P)
Company: Oracle
Profile: Application Developer

Recruitment Procedure

- Online Test, Technical Interview, and HR Interview.

- Online Test:
    - Consisted of multiple sections like Aptitude, Quant, English, and Computer Science.
    - Computer Science section had questions from Data Structures and Algorithms (Binary Trees, AVL Trees), Operating System, OOP, and some from Databases.
    - The questions were MCQs and they were easy but one had to take care of time.

- Technical Interview:
    - First round: Coding questions were quite easy.
        - The first two questions were ad-hoc or implementation based. 3rd question was based on BFS and priority queue on tree but it was also quite easy.
        - Other questions were asked on Database. Knowledge of SQL queries and Database subject, in general, is a plus point.
        - Data Structure design-based problem related to Database design was also asked. A few questions were asked on projects and why I was interested in Software Development.
    - Second Round: Monty Hall problem with mathematical solution, a basic recursion problem to code (ad-hoc/implementation), ways to merge N companies, Thrashing (Operating System). Show your interest in the company and ask relevant questions.

- HR Interview:

    - General questions on why Computer Science interests you, PoRs. Ask whatever questions you have about Oracle and show interest in joining the company.

Sources of Preparation

- DSA is the most important topic. Leetcode, Interviewbit, GeeksforGeeks are enough sources for Preparation.

- Practice puzzles from InterviewBit and GeeksforGeeks. OOP and OS questions are also asked.

- Although Database systems are not a must for EEE/EnI students, knowing SQL queries and Database systems, in general, gives you an advantage over other students.

Courses and Certification

- DSA, OS, OOP, and DBMS are required. No extra courses and Certificates are required for Oracle.

Other Relevant Information

- Interviewers were quite patient so take your time and discuss the problem statement with them before you start solving the problem.
- Be interested in working with them and ask questions on what is expected of yourself in Oracle and other questions about the company, projects, and work culture.

Sector: IT

Name: Garima Khandelwal (2016A4PS0349P)
Company: Oracle

Profile: Applications Developer

Recruitment Procedure

- Online test, Technical interviews, HR round
- Online Test:
    - MCQ questions. Various sections on Verbal, Aptitude, and coding with time limits for small sets of questions. Important to maintain speed and accuracy.
- Technical Interview:
    - Only DSA/competitive programming questions asked.
    - First round: write code for finding anagrams of word, the logic for: check for correctness of brackets, given the coordinates of computers find minimum length of LAN cable required, Knapsack Problem.
    - Second round: Started with 2 puzzles Monty Hall problem and find a number of ways to merge n companies. Asked to write code for a recursive problem and then finding loops in BST.
- HR round:
    - Tell 2 achievements in your past 3 years of college life. Why should we take you since you are from mechanical and hence incompetent? Why Oracle? Rank in IIT advance. Why mechanical.

Sources of Preparation

- Do solve Geeksforgeeks puzzles.
- InterviewBit

Courses and Certification

- DSA is important.

Other Relevant Information

- Even if you are not able to solve in the first attempt keep telling them your approach, interviewees will help you.

Sector: IT

Name: Navjot Bansal (2016A7PS0070P)

Company: Oracle
Profile: SWD Server Technology

Recruitment Procedure

- Online Test, 2-Technical Interview, and HR round

- Online Test:

    - The test was around 110 to 120 minutes and had only MCQ questions with single option correct

    - Questions were from the following domains

        o General Aptitude

            1. Everyday Mathematics

            2. Algebra

                General questions on Mental Ability Test

        o DSA knowledge

            1. Most questions were from AVL trees

            2. Some questions on generic algorithms and time complexity

            3. Design problems with empty sections where the correct pseudocode was to be filled

        o Operating Systems

            1. Surface level questions from the course (Course slides must suffice)

        o Database

1. Questions on queries, joins and ACID properties were asked

2. www.oracletutorial.com/oracle-basics (This website is useful in this case)

o Computer Networks

1. Surface level questions from the course (Course slides must suffice)

o English proficiency

1. Grammar Questions

2. Sentence resequencing

3. Semantically accurate sentence

- You can choose which section to solve first and each section had its individual time limit from 6 to 15 minutes

- Technical Interview (I):

  - It was more like a résumé discussion round and the interviewer asked me about my latest project (Blockchain)

    o He told me to explain Blockchain in Layman's term

    o How does a blockchain follow ACID properties without having a central database?

    o How can generics be implemented on Blockchain Ledgers?

  - Was asked to write a program on reversing a linked list

    o Was given test cases to dry run the code

    o All possible cases where the code would fail

  - Was asked to write a program on detecting a loop in linked list

    o Was asked to give all possible approaches I can think of and what are the tradeoff between them.

- Technical Interview (II):

  - I was told that Floyd cycle detection algorithm has been reduced from a general approach

    - Was asked to look at the broader picture and how the algorithm was derived (not the proof)

    - Provide proof of the parts mathematically

  - I was asked my views on SQL vs NoSQL and when to use what

  - Were asked some questions and was given 10-15 second to solve

    - make 6 from three 1

    - make 6 from three 10

  - I was asked the scope of dynamic programming and tradeoffs involved with real-life cases

- HR Round:

  - Was asked about the routine of a generic day

  - He looked at my résumé and asked why my CG is low as compared to my peers and any achievement that compensates for it

  - He looked at my résumé again and asked about any project where I had a major setback because of Time/Space complexity issues

  - Was asked questions like why **should not** they hire me

  - I was then asked what 3 things should an organization look in a potential candidate and what 3 things a candidate looks for in their dream company

Sources of Preparation

- InterviewBit/Leetcode (Programming practice)
- GFG (last-minute notes and theoretical concepts of DSA)
- java-t-point (OOP concepts)

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- Oracle Tutorial (SQL basics)

Courses and Certification

- I had projects on blockchain and NLG, thus was asked any certificate relevant to it.

Other Relevant Information

- When you are stuck at some part of the algorithm ask them for hints (they are generally helpful)
- Avoid saying I cannot solve it / I don't know to give it a try and ask for help if necessary (Past Experiences)

Sector: IT
Name: Palak Vij (2018H1030146P)
Company: Oracle

Profile: Server Technology

Recruitment Procedure

- Online Test, 3 Technical Interviews, 1 HR Interview
- Online Test:
  - The online test was conducted on the Oracle platform.
  - It had various sections like Aptitude, Data Structures, Technical (OS, DBMS), Reading Comprehension, etc.
  - No negative marking. Each section had its own timer. The questions were not that difficult but maintaining speed is very important.
- Technical Interview:
  - In the first technical interview, I was asked about my projects, questions like how to find maxima in an array of numbers, SQL queries (as it was mentioned in my resume), and a puzzle. Duration: 45 min.
  - In the second technical interview, I was asked questions on DBMS – Database Normalization. Then he asked questions about Java and its collection frameworks like the difference between Comparator and Comparable, wrapper classes, generics, etc. I was asked to write a program to implement itoa function (in C) without using any inbuilt function. Then he asked puzzles. Duration: 1 hr.
  - In the third technical interview, I was again asked SQL queries and math puzzles. Duration: 15-20 min.
- HR Interview:
  - In HR interview, I was asked general questions such as Tell me something about yourself which is not in your resume, why do you want to join Oracle, why should we hire you.

Sources of Preparation

- GeeksForGeeks, InterviewBit

Courses and Certification

- No certification is needed.
- Courses – Java, DBMS, Data Structures and SQL

Other Relevant Information

- Prepare your resume well and be thorough with it.

Sector: IT
Name: Ankit Singh (2016A3PS0145P)
Company: OYO Rooms

Profile: Software Development Engineer

Recruitment Procedure

- Online Test: It consisted of 2 coding questions and MCQs. Coding questions were moderately easy :
    - Generate all N-bit gray codes
    - Merge K sorted linked lists
    MCQs were based on OOP and OS.
- Technical Round 1: Interviewer gave a brief description of working of LRU Cache, then asked to implement it using suitable data structures such that both search and delete operations take O (1) time. Array-based questions were also asked.
- Technical Round 2: Questions based on resume, data structures, OOP, OS and puzzles. Questions on data structures were: diagonal traversal of binary tree, left view of binary tree, left view of binary tree using O(1) space(without queue), move all negative nos. to beginning in an array, auto-complete using tries.
    - In OOP, questions based on threads (such as various life cycles of a thread) were asked.
    - I
n OS, the various process scheduling techniques were to be explained properly.
    - Apart from this, a math puzzle based on functions was also asked.

Sources of Preparation
- InterviewBit
- GeeksforGeeks

Courses and Certification
- DSA, OOP, OS

Other Relevant Information

- Be thorough with your resume. Don't include projects which you cannot explain properly.
- Don't worry if you haven't done much competitive programming. Interviews can still be cleared with focused preparation.
- Be prepared for questions like why you are choosing IT over your branch if you are from non-CS background.
- Be confident while answering and be friendly with the interviewers.

Sector: IT
Name: AYAN DUTTA (2016A3PS0174P)

Company: PAYPAL

Profile: Software Engineer

Recruitment Procedure

- There were four rounds – one coding round, two technical interviews and one HR interview.
- Coding round consisted of two questions from graphs. One was related to BFS of graph and the other was based on unions and disjoint sets. The maximum time allotted was 2 hours. Both questions were easy.
- In the first technical interview, a question on dynamic programming was asked. I was asked to detail the approach and then write the code. Then a variation of the water jug puzzle was asked in which I had to minimize the number of transfers. The interview lasted nearly 45 minutes. This round was easy as well.
- The second technical interview involved questions regarding the usage of different data structures in the corporate world. After that, questions on linked lists and trees were asked. I was supposed to write the codes. The next few minutes involved questions on my resume. Following that, various concepts of OOP were asked. The interview lasted nearly an hour. This round was of medium difficulty.
- The last interview was an HR interview. It was fairly easy.

Sources of Preparation

For coding round, InterviewBit and GeeksForGeeks. For the interview round, typical coding interview questions and archives of the company one is applying for.

Courses and Certification

CP, OOP, OS.

Other Relevant Information

Reserve adequate time for revising resume. In the resume, don't flood the courses and skills sections, instead put things which you have revised well and have good knowledge of.

Answer the interview questions confidently. Make sure whatever you speak is clear and audible.

Sector: IT

Name: Deep Vikas Kulkarni (2015B5A70671P)
Company: **PayPal**
Profile: **Software Engineer**

Recruitment Procedure

1. Online Coding Test - 2 simple graph traversal questions were asked on Hackkerank's platform.
2. 2 Technical Rounds:
    2.1. Question - Make a phone contact book which can be searched using contact names and phone numbers. We discussed the approach and I was asked to write code on paper.
    2.2. Discussion about previous internships and projects. You should go through work done in atleast 1 internship/ project in detail before your interview. You should be able to explain how you made design decisions, challenges that you faced in the course of work and how you overcame them.
3. Director Round: General discussion about BITS and life, along with these questions:
    3.1. Why do you want to join PayPal?
    3.2. What does PayPal do? Have you used our product?
    3.3. Why should we hire you?
    3.4. Why do you not want to study further (MS/MBA)?
    3.5. What expectations do you have from your workplace?
    3.6. What are your long term goals?

Sources of Preparation

Geeksforgeeks, Codechef, Codeforces, LeetCode, InterviewBit

Courses and Certification

CS CDCs should be enough.

Other Relevant Information

Practice writing code on paper. Practice coding in online contests to see how you perform in limited-time and hidden-testcase environments.

Placements will be incredibly hectic - a lot of coding tests, interviews one after the other. Get enough sleep before each test. No matter how tired you are, be warm and cordial with your interviewer. At the

end of the interview, if they ask you if you have any questions for them, ask about their work at the company and how their experience has been.

Revise CS fundamentals, especially OS. Revise at least 1 internship/project in great detail.

Sector: IT
Name: Nishchay Agrawal (2016A7PS0088P)
Company: PayPal

Profile: Software Developer

Recruitment Procedure

- Online Test, Technical Interview, HR Interview
- Test was easy. However, it is important to maintain speed to finish all questions. There were two questions which had to be solved in two hours. They were based on BFS and tree traversals.
- In the first technical interview, the interviewer talked about my resume and gave a problem of system design. He tested my understanding about data structures and when and where each data structure can be used. Be thorough with your understanding about data structures and time and space complexity.
- The second technical interview was a detailed discussion on my resume. He discussed implementation of lexer in a compiler, basics of java and paradigms of object oriented in C.
- Questions:
    a. Tell us about yourself
    b. Follow up questions from what you answer
    c. Why this company, What do you like other than computer science and why, plans for masters?

Sources of Preparation

GeeksForGeeks, Interviewbit, leetcode

Courses and Certification

No subject as such.

Other Relevant Information

Placements can be hectic and full of pressure. Stay calm and just be focused, things do workout eventually.

Sector: IT
Name: Shantanu Vichare (2016A3PS0156P)

Company: PayPal

Profile: Software Engineer

Recruitment Procedure:

- There were four rounds – one coding round, two technical interviews and one HR interview.
- Coding round consisted of two questions from graphs. One was related to BFS of graph and the other was based on unions and disjoint sets. The maximum time allotted was 2 hours. Both questions were easy.
- In my first technical interview, a problem statement was given to me. I was asked to implement a dictionary (storing meanings for words). I had to suggest a way to implement it efficiently and asked to write code on paper and other ways to solve the same problem statement were discussed. Lastly
- The second technical interview involved questions on linked lists and. I had to write the codes for both of them. I was asked questions on my resume like about my work with respect to my POR and projects. Having mentioned OOP and OS on my resume, questions based on that were asked. The interview lasted a little over an hour.
- The last interview was an HR interview. It was mainly to test my compatibility with their office culture.

Sources of Preparation:

For coding round, InterviewBit and GeeksForGeeks. For interview round, typical coding interview questions and archives of the company one is applying for are available on GeeksForGeeks.

Courses and Certification:

DSA, OOP, OS.

Other Relevant Information :

Reserve adequate time for revising resume. In the resume, don't flood the courses and skills sections, instead put things which you have revised well and have good knowledge of.

Sector: IT

Name: Rahul Khandelwal(2016A7PS0128P)
Company: Publicis Sapient
Profile: Associate Software Development Engineer II

Recruitment Procedure:

- Received Pre Placement Offer on the basis of summer internship.
- For Internship Experience refer to PU Chronicles for Internship.

Sources of Preparation:

- GeeksForGeeks, InterviewBit for Competitive Coding
- Course Slides for CS Subjects like Operating Systems, OOP, Database.

Courses and Certification:

- CS CDC's, Machine Learning, Neural Networks, and Fuzzy Logic

Other Relevant Information:

- Always express your ideas with the interviewer rather than thinking silently.

Sector: IT
Name: Deependra Singh (2018H1030132P)

Company: Samsung R&D Bangalore

Profile: Senior Software Engineer (Developer Profile)

Recruitment Procedure :

Only ME students were allowed (CS + SS + a few other branches as well).

- 3 Hour test: Had to solve one question in 3 hours with all 10 test cases passed. 5 submission attempts. A monotonically increasing function was given in terms of n.
- I had two technical rounds. One HR round.
  - Round 1: Discussion on projects, and towards the end I was asked the working of quicksort and to code it on paper.
  - Round 2: Following questions were asked:
    - Given a sorted linked list, search a given no. in log(n)
    - Find the nth Fibonacci no
    - In less than O(n) time complexity Explain quicksort and merge sort and code it on paper.
    - Given an array of n elements, find if an element is repeating more than n/2 times.
    - Given an MST formed from a given graph. If all edges are added/multiplied by k, would MST change for the new graph? Explain.
    - Given a shortest path from A to D of a given graph, If all edges are added/multiplied by k, would shortest path change?
  - Round 3: Question along the lines of: What do you think about Samsung? How has the recruitment process been so far? Where do you see yourself in

five years? What do you think your friend's thought of you when they saw you for the first time? How are you with people in general? Any questions for me?

Sources of Preparation

InterviewBit Academy

Sector: IT

Name: Kamaldeep Verma (2018H1120281P)
Company: Samsung R&D Bangalore

Profile: Senior Software Engineer – Developer

Recruitment Procedure

- **Coding Test**

  a) Coding test was taken on their own platform(software). Therefore, use of any external libraries like STL ,Collections was not allowed.
  b) Memory Constraint was also there. You need to pass 10 test cases. Maximum submissions allowed were 5 .Though you can compile and test any number of times. Students who passed all the test cases were only called for interview.
  c) Languages supported were C/C++/Java
  d) There was one question which needed to be solved in 3 hours. Question is mostly from the topics like backtracking, recursion and graphs.

- **Technical**

  Samsung loves graph. They require you to have in-depth knowledge of graphs. Questions were not direct. Most of them were application based. They will go through each point of your resume in detail. Prepare your projects well. Questions asked are as follows:-

  a) Application based problems from topics like Trie Data structure and pair sum
  b) Graph algorithms(with code implementations) like DFS, BFS, Cycle Detection, MST, Prims, Dijkstra ,Floyd Warshall, Bellman Ford etc. Most of the algorithms were asked with some modifications to check your in-depth knowledge. There were less direct questions. They asked practical problems where you need to identify and apply these algorithms.

- **HR**

  Basic questions were asked. Some of them are:

  a) Where are you from?
  b) What do you know about Samsung?
  c) Any questions that you would like to ask.

Sources of Preparation

Geeksforgeeks(Must Do) and InterviewBit

Courses and Certification

Advanced Computer Networks, Data Mining, Data Warehousing, Object Oriented Analysis & Design

Other Relevant Information

Prepare your resume thoroughly. They might ask even the most unimportant point mentioned in your resume. Prepare graphs(algorithms with implementation), backtracking and recursion well. They might grill you in these topics.

Sector: IT
Name: Nihal Murali (2014HS120212P)

Company: Samsung R&D (Research)

Profile: Research

Recruitment Procedure

Online Test, 2 Technical Interviews, HR

- Online Test:

  - The online test allowed only C, C++, Java. Problem was based on a simple binary search, with a little trick involved which is easy to figure out if one maintains his cool. Time limit was 3 hours was given. Many could complete the problem in an hour.

- Technical Interview 1:

  - It was a very casual, and a few technical questions were asked based on one's resume and projects done.

  - He looked at my projects and figured out that I was interested in Deep Learning and Computer Vision, and hence asked a few questions on CNNs, RNNs, LSTMs, and GRUs

- Technical Interview 2:

  - All the people I spoke to found this to be very challenging. He asked me very specific and pointed questions about my resume. Questions involved:

o Bellman Equations (I did a project on deep RL)

o Minimizing expectations over random variables and other statistical machine learning questions (I had done a lot of projects in machine learning)

o Loss functions for deep neural networks (my primary research area is deep learning)

o Distance metrics for comparing and quantifying dissimilarities of two probabilistic distributions (I had done many data mining related courses)

- I wasn't prepared for these questions so I spent my time deriving the answers to them in front of the interviewer. This round would have been a lot easier if I had revised the basic concepts of the subjects that I am interested in.

Sources of Preparation

- Online test: Basic programming skills + basic DSA knowledge suffices. I could not prepare for my placements since I was busy with other projects, but since I code regularly and was comfortable with the basics of DSA I could pass the test.
- Technical Interview1: Be comfortable with your resume. Recollecting one's projects and the technical details involved can prove very useful.
- Technical Interview2: Your projects/publications (followed by your coursework) would be the most likely indicators to your special interests, and one should be prepared and comfortable with these areas as much as possible. Having a very good command over these subjects would impress your interviewer a lot.

Courses and Certification

No subjects as such. They asked me questions related to statistical machine learning and probabilistic theory, since most of my projects were based on that.

Other Relevant Information

HR round consisted of questions regarding Samsung company, and the uniqueness of its products. A little preparation about "Why Samsung" could be useful.

Sector: IT
Name: Patel Parth (2016A7PS0150P)

Company: Samsung Research Institute Banglore (SRI-B)

Profile: Researcher

Recruitment Procedure:

I was a summer intern at SRI-B and managed to secure the pre-placement offer. The selection process at SRI-B consisted of following rounds:

1. Coding Test – 1 Question, 3 hours. Only C, C++, Java allowed.

   - Cannot use any library function except printf(), scanf(), malloc() and free(). So, we had to code all data structures from scratch.

   - First test was held after about 4 weeks of internship start date and second one was held 2 weeks after the first one.

   - You must clear any one of the two tests to proceed to the interviews. Generally, questions are based on graphs (BFS, DFS, etc.), binary-search, backtracking and DP.

   - Test is conducted on Samsung's own platform (and you are allowed access to Visual Studio Express/ Eclipse for debugging during test) and you can practice questions on it from a week before the test. You need to pass all 50 test-cases to clear the test.

2. Technical Interview – It lasted for about 45 minutes. In general, questions from DSA, DBMS, OOP, OS and Computer Networks were asked.

   Be ready to code your approaches for DSA questions. You should know how to code basic data structures and algorithms like AVL Tree, Heap, QuickSort, Dijkstra, etc. I was asked a question on finding all the cut vertices in a graph efficiently.

From OOP, design patterns are commonly asked (and you should be able to write its code). Other subjects like DBMS, OS and Networks can be prepared from lecture slides(preferably) or GeeksForGeeks.

College projects and current project at Samsung were also discussed during the interview. Some people were also asked some standard puzzles (found on GeeksForGeeks).

3. HR Interview – It lasted for about 15 minutes. The interviewer asked me common questions like "Tell me about yourself", "What are your strengths and weaknesses?", etc. It is better to be prepared for such standard questions beforehand.

4. Research Interview – It lasted for about 35 minutes. Questions asked were heavily dependent on the interviewer. Some people were asked questions from Linear Algebra and Probability and Statistics.

Others were asked basic ML & DL questions like explain working of Convolution operator in CNNs, LSTM's equations, Batch Normalisation – Covariance Shift, Overfitting, Regularisation, Supervised vs Unsupervised learning, etc.

First, I was asked to explain my current project at Samsung and various follow-up questions like "Related Work", "What new are you trying compared to what other research papers have achieved?", etc were asked. I was also asked to explain my NNFL course project. Then, I was asked general analytical questions based on deep learning (mainly involving design choices) – like:

- What will be better for tasks like sentence classification – RNN or CNN, and why? (CNN)

- What will be better for seq-2-seq tasks like machine translation – RNN or CNN, and why? (RNN)

- Explain intuition behind Pooling layer in CNNs.

Sources of Preparation:

InterviewBit, LeetCode, GeeksForGeeks

Courses and Certification

- DSA, OOP, DBMS, OS and preferably (but not mandatory) Networks.

- Courses like Machine Learning, Data Mining, NNFL can be helpful. I had also completed the 5-course specialization by deeplearning.ai on Coursera.

Other Relevant Information

Questions in both the coding test and technical interview were of easy to moderate level. Sound confident in the interviews. Good presentation of your approach is important in the interviews.

Sector: IT

Name: Prateek Agarawal (2015B3A70713P)
Company: Samsung Research Institute Bangalore
Profile: Software Developer

Recruitment Procedure

I was offered a PPO on summer internship. They have a 3 rounds, internal process during the internship on the basis of which PPOs are given.

Sources of Preparation
GeeksforGeeks

Sector: IT
Name: Ritaban Roy (2015B2A70842P)
Company: Samsung Research Institute – Bangalore

Profile: Research Profile

Recruitment Procedure:

- There were a total of four rounds in general: Online Test, 2 Technical rounds, HR round.
- There was CGPA cut-off of 8.5 to apply for this profile. The online test consisted of a single coding question with a duration of 3 hrs. No STL or libraries were allowed.
- The question given to us was finding the membership of a number in a monotonically increasing sequence. The question was relatively easy and could be solved using binary search with certain modifications to take care of the limits. All test cases need to pass in order to clear this round.

- I had just one technical interview after which I was directly sent for the HR round. In the technical round, the interviewer started off by asking about the projects I mentioned in my resume, with special emphasis on the projects in deep learning.
- He asked in detail about the implementation, results and possible improvements. Then he gave design questions which were in some ways extensions of my projects.
- Then I was asked some questions related to the maths behind some machine learning techniques and some questions on probability. There was also a brief discussion on research procedures in general. The interviewer insisted on writing everything I explained.

- The HR round was just a normal discussion and the interviewer asked about my interests and expectations.

Sources of Preparation:

InterviewBit, GeeksForGeeks for coding. Blogs and papers for deep learning.

Courses and Certification

NNFL and Machine learning will prove useful.

Other Relevant Information:

Online test questions tend to repeat, so archives are a good place to start with. Here's one : https://interviewbubble.com/samsung-interview-questions-asked-in-samsung-3-hour-test-set-1/

Sector: IT

Name: Sanskriti Sharma (2015B3A70553P)
Company: Samsung R&D

Profile: Research Engineer

Recruitment Procedure

Process:

    a.   Online Test
    b.   Personal Interview – 1
    c.   Personal Interview – 2
    d.   HR Interview

Test: Moderate. The test had only 1 question.

- It is conducted in Samsung's proprietary software as opposed to other online tests typically conducted on HackerRank.

- Use of STL and other libraries is not permitted. While you can test your code on your own test cases any number of times, only 5 submissions are allowed to check on their test cases.

- Time allotted was 2.5 hours. Students who cleared all 10 test cases were shortlisted for the next round.

- The question was a simple binary search question. Given a complicated equation in a variable n, we had to determine the index of a value of the equation. For instance, if the equation was 2n+2, for value 2, index is 0, for value 4, index is 1(n=1) and so on.

- There were three key things to note here - one, to realize that binary search is to be used (linear search led to timeout); two, to ensure that long is used (in Java) since the values were beyond the scope of int and three, to control for overflows

in binary search (the equation would lead to huge values which would overflow into a negative value, messing up binary search since a value which is actually larger would be perceived as smaller, messing up the index you get).

- **PI 1:** Easy. You will sail through as long as you know your projects well. They focus a lot on internships and projects. I was asked to pick a favourite internship and describe the work I did there – the background of the problem, issues faced during implementation and the results that we attained.

- **PI 2:** Difficult. Initially, I was asked some conceptual questions about neural networks such as:
  a. ELI5 - neural networks
  b. Difference between a shallow and deep network
  c. What kind of networks would require >100 layers?
  d. Difference between object detection, recognition and identification

  I had mentioned in my resume a project on driver drowsiness detection using EEG signals. He asked me why we chose EEG signals, and instead asked me to design one that uses video feed to detect the same. I had to design the entire system from scratch.

  This part of the interview would vary based on your projects, but since these questions are not exactly based on your project, knowledge of popular algorithms and clarity on concepts (eg: why you would choose not to use maxpooling in a system such as this, why you would require LSTMs here, how you would design your network architecture) is essential.

- **HR Interview: Easy.** Questions such as:
  a. Why Samsung?
  b. Why not pursue higher studies?
  c. Which problem would you be interested in working on, if hired?

d. What do you know about current research areas in Samsung? (Read up on this)

Sources of Preparation
Geeksforgeeks, Andrew NG's machine learning and deep learning courses

Courses and Certification
Neural Networks and Fuzzy Logic

Other Relevant Information

You should be absolutely thorough with your resume; most initial questions are based on your resume and the interview branches out from there.

Sector: IT

Name: Shubham Sharma (2016A7PS0115P)

Company: Samsung Semiconductor , Bangalore

Profile: Senior Software Engineer

Recruitment Procedure :

The whole process consisted of 4 rounds.

First Round: A 3-hour coding test on Samsung's platform. The question was on a simple 2D game based on backtracking.

First Technical Interview: The interviewer asked me about my projects. Questions asked:

- To add two numbers (in millions) using strings (complete code)
- Lower bound and upper bound on binary search was asked.
- Another question on using threads in OS was asked. 2-3 conceptual questions in OS were asked.
- One mathematical question on recursion was also asked.
- I was asked to explain about what happens when we send someone message on WhatsApp. Had to explain the process using the theory in Computer Networks. The interview concluded with me asking him questions on the work culture in the company.

Second Technical Interview:

- The interviewer asked me to introduce myself. I told him, I am interested in Chess and was immediately asked me to design a chess game (not the UI part).

- I was asked to design the algorithms so that my move is optimal at every step (I was the Computer part and the other opponent was the user who can make any move). I was given sufficient time and he wanted to know how I approached the problem and what all Data Structures I used.

- After this, he asked me a Maths Aptitude question. I knew the answer beforehand, but I was trying to solve it using Calculus in front of him (which was not required).
- He asked me a bit about my projects and some DSA questions as well. Then he asked me to write the code for implementation of Stack using an array with some given functions. After that I was asked to modify the same code for two stacks in a single Array

HR Interview: I was asked to introduce myself. She asked me to explain any one of my projects and one of my internship experiences in detail. She asked me why I wanted to join Samsung, if I had any plans for MS, and I had to convince her, why I didn't want to go for MS. She asked me about my aspirations and what I expect from the job, where I wanted to see myself after 5 years.

Sources of Preparation
Interview Bit, Geeks for Geeks and CodeChef for mathematical coding problems.

Courses and Certification
Be thorough with the Core CS subjects. They are as important as DSA.

Other Relevant Information

Most of the interviews are based on your projects, so do not write fake projects just for the sake of writing . Also, try to keep your mind cool before the interviews. Most of the interviewers are friendly and give you adequate time to solve the problem.

Sector: IT

Name: Ranade Shubhankar Prasad (2016A7PS0099P)
Company: Samsung Research Institute, Bangalore

Profile: Research

Recruitment Procedure

1. Online Test:
   A 3hr coding test, hosted on Samsung SW Certificate software. There is **only one** question for which all testcases should be cleared. There are a **limited number of attempts** for submission (usually 5). STL/utils may not be available.

   Expect questions on DFS/BFS, Permutations & Combinations and Backtracking. DP is rarely required.
   I had a question on optimally searching an infinite non-decreasing sequence. Solved it using exponential search followed by binary search.

2. Technical Interviews:
   Make sure you know what you're putting on your resume. Don't put stuff just because you think you're supposed to or because it "looks good". Everything on your resume will be talked about at some point in the interview, especially the projects.

   Be clear about two things when it comes to your projects:
   1. Motivation behind a project
   2. Aim of the project

   Talk about how you identified the problem to be solved and why you solved it the way you did. Also mention alternative approaches to the problem, if you can think of any. The interviewer might ask follow up questions based on that, or on extending your solution to related domains.

They might not ask any direct questions about traditional interview topics like DSA, OOP and OS, although the discussion about your projects covers most design and implementation aspects.
Asking questions about the company to show your interest certainly helps.

3. HR Interview:
   General discussion about extra-curricular activities in college. Again, ask questions about the company.

Sources of Preparation

Leetcode / Hackerrank / InterviewBit for coding. Go through subject notes and project reports for resume.

Courses and Certification

CS CDCs and other courses depending on your profile.

Other Relevant Information

Be careful about the electives you mention on your resume. You are expected to have thorough knowledge of those subjects.
Be enthusiastic and cheerful.

Sector: IT

Name: Ujjwal Saini (2015B3A70607P)

Company: Samsung Research Institute , Bangalore

Profile: Software Developer

Recruitment Procedure – PPO Through Internship

- Coding test, Group fly, Tech interview.
- Test had 3 Questions, basic concepts of tree traversal and binary search.

    - Some 120 people were shortlisted.

- The group fly round was the eliminator. We were separated into groups of 4 and only 1 out of each group of 4 would move to the next round.

    The question was finding the median of two sorted arrays in O(log n) time and O(1) memory.

    - Next was the tech interview, I was asked the N-queens problem from geeksforgeeks and basic info about my resume projects and PS1 internship. I had to optimize the problem using a hash map.

    Around 20 got the internship.

The procedure to get the PPO while in Samsung.

    - Coding test – Two attempts are given to solve a problem in 3 hours. All test cases must pass. Brute force works.
    - Tech interview – Questions from subjects, Data structures and the programming language of your choice.
    - Manager review – The consider your managers review also in deciding. But generally, if you don't screw up pretty badly you get a favourable review
    - HR Interview – Standard Questions. How was your experience, how was your team etc.

Sources of Preparation

InterviewBit, GeeksForGeeks.
Try and solve as many questions without looking at the solutions from these sites.
For Samsung focus on Graphs , Backtracking ,BFS , DFS etc.

Courses and Certification – DSA
  Proficiency with data structure and algorithms is required the most.

Other Relevant Information

Only mention the coursework you are proficient with in the resume, otherwise its just better to leave it out.

Sector: IT

Name: Vighnesh Hegde (2015B4A70342P)

Company: Samsung

Profile: Researcher

Recruitment Procedure

- Coding test – There was an 8.5 CGPA cut off for this test. It was on Samsung's own platform, devoid of any standard libraries. The test itself was fairly simple. One problem for three hours. We had a modified binary search problem.
- Interview – The interview had two technical rounds, and one HR. The technical rounds revolved around a lot of statistics, and theoretical. They went deep into the projects on the resume.

Sources of Preparation

Interviewbit for the tests. One must be prepared to defend every word on the resume.

Courses and Certification

Machine Learning or Deep Learning related knowledge might help.

Sector: IT

Name: Vipul Behl (2018H1120265P)
Company: Samsung R&D Bangalore

Profile: Senior Software Engineer (Developer Profile)

Recruitment Procedure

1. **Online Test** – Had to code one problem in 2.5 hrs. They have a separate software (IDE) for the test. It was an easy problem based on binary search; the only trick was there were many overflow conditions which had to be handled properly.

   A total of 10 cases were there and you have to pass all of them to get through this round. There are restrictions on the heap and stack size and you cannot use STL or Collections to solve the problem. Tip – Spend some time to understand the software (IDE).

2. **Interview 1** – Standard questions like tell me about yourself. In depth questions about every project and technical expertise written on your resume, was also asked to code some part of my project. Questions were asked based on DP, Trie, Graphs, and Arrays. Asked to implement the core logic of Dijkstra's algorithm, also asked what would happen if he adds/multiplies weights to the shortest path. He was more interested in optimizing the solutions that I provided, gave me enough time to think.

3.

4. **Interview 2** – Basic HR questions, why do you want to join Samsung? What do you know about Samsung? Where do you see yourself in 5 years? Then he started discussion about my previous interview. Then he started describing the work that Samsung's Bangalore centre does.

Sources of Preparation

Solve all the questions on the MUST DO section of geeksforgeeks.
https://www.geeksforgeeks.org/must-do-coding-questions-for-companies-like-amazon-microsoft-adobe/

Courses and Certification

No Certification

Other Relevant Information

Prepare your projects well, if you can explain your projects with implementation your chances will improve.

Sector: IT

Name: Vivek Rathore (2018H1230236P)
Company: Samsung Research Institute, Bangalore

Profile: Software Engineer(Research)

Recruitment Procedure

- Online Test: Duration of the test was 3 hours and only basic memory management, I/O functions were allowed . Test was moderate level.

- Technical Interview I:
    a. Tell us about yourself
    b. Most of the resume points especially projects were discussed.
    c. Why do you think you are suitable candidate for this profile?
    d. General personal questions – Where are you from? How is that place? How many siblings do you have?
- Technical Interview II:
    a. Tell us about yourself
    b. Your Research Interest Area.
    c. Follow up questions to know your acquaintance with that area and your brainstorming capabilities. Most probably you'll be judged based on this.
- HR Interview:
    a. Tell us about yourself
    b. Improvements in Company policies and general talk about the company.

Sources of Preparation

- Competitive Coding - InterviewBit, Geeks for Geeks

Courses and Certification

C Programming, DSA, OOP, Operating Systems

Other Relevant Information

It would be beneficial to have prior experience of Machine Learning and Artificial Intelligence. Try to engage in good discussion with the interviewer and learn from him.

Sector: IT

Name: SAPTARSHI BHATTACHARJEE (2016A3PS0201P)
Company: TOSHIBA
Profile: Software Developer

Recruitment Procedure

- Online Test, Technical Interview, HR Interview
- Online test included aptitude questions, basic C language based questions and one coding question. People who passed some test cases of the coding question got selected.

- Technical interview was mostly based on C and OS knowledge. I hadn't done Computer Architecture, so they didn't ask me that but they were interested in people with Computer Architecture knowledge. Overall, they tested the basic knowledge one has of the above mentioned subjects.

Sources of Preparation

- Geeks for Geeks for Coding
- Yashwant Kanentkar - Let us C

Courses and Certification

OS, DSA, OOP

Sector: IT

Name: Aayush Sharma (2016A3PS0176P)

Company: Uber

Profile: Software Engineer

Recruitment Procedure:

- Online Test, Technical interviews (2), HR interview
- Online Test had 3 questions:
    1) DP with optimization
    2) Graphs (bipartite and disjoint union)
    3) Ad-hoc with memoization
- Online Test was tough. However, it is not important to complete a question, partial test cases were also considered. Duration: 90 mins
- First technical interview was on system design. An optimal Hotel reception allocation System was asked to design. After discussing the basic design I was asked to code and compile the relevant classes and methods on laptop. Duration: 45 mins.
- Second technical interview was completely on graphs. There was only one question with a follow-up, difficulty level of the question was Hard. I had to write the code on paper and explain it line by line also the solution must be optimal (brute force solutions are not even discussed). It was a long interview of about 90 mins.
- HR interview was chill. The interviewer basically discussed all of my resume points and asked basic HR questions like Biggest regret of life, Why Uber, Any instance or a project where you lead something. Also if you are from EEE, be prepared to answer why go for IT sector. Duration: 30 mins.

Sources of Preparation:

- I highly recommend doing at least 300 questions on Leetcode. GeeksforGeeks is also important. Regular contests on Leetcode and Codeforces.

Courses and Certification:

- DSA, OOP, OS is sufficient.

Other Relevant Information:

- Uber mainly focuses on graphs so make sure you have a strong understanding of graphs and it's algorithms. Be prepared to code on a laptop and on paper in front of the interviewer.

Sector: IT

Name: Adhitya Mamallan (2016A7PS0028P)
Company: Uber
Profile: Software Engineer

Recruitment Procedure

- Online Test:
  - This had 3 coding questions for 90 minutes, and they asked questions based on DP, graphs, and matrix traversal. Trees and binary search are also important topics.
- Interview:
  - The interview had 3 rounds. We were asked to carry our laptops with us.
  - Round 1, Laptop Coding:
    - The interviewer gave me a situation involving queues at a hotel reception. He asked me what classes I would make to implement it, then asked me to write code on my laptop, in any language of my choosing.
    - He then gave me the opportunity to ask questions about his work.
  - Round 2, Pen and Paper Coding:
    - The interviewer gave me a question based on graphs, spanning trees and traversal.
    - While the question initially seemed daunting, the interviewer walked me through the problem properly, and we talked about the approach.
    - What helped was the fact that I was very open with the interviewer, and discussed everything with him.
  - Round 3, Hiring Manager:
    - This was more of an HR and resume discussion round.
    - The hiring manager asked me about random points on my resume, and also some generic HR questions.
    - He then let me ask him any questions I had and thanked me for my time.

Sources of Preparation

- Finishing InterviewBit, or covering a little of each topic, is more than enough preparation for the coding rounds. You can also solve questions on LeetCode. Focus on Graphs and DP.
- GeeksForGeeks is also useful for reference.
- For the interview rounds, go through Cracking the Coding Interview. It has a lot of useful advice and is a must for anyone sitting for IT companies.

Courses and Certification

- DSA, OOP, Database Systems, OS, Networks are important topics.
- Courses like Neural Nets & Fuzzy Logic are also very useful because the accompanying projects are a great learning experience and you get solid resume points.

Other Relevant Information

- Always discuss with your interviewer, try to not go quiet if you can. The interviewer wants to see your thinking process and approach instead of whether you get the answer or not.
- In the laptop coding round, make sure your code is clean, well-indented, and modular.
- Prepare for all the HR questions. "Tell me about yourself" is an absolute must for any company. For each project and internship you did, make a list of the challenges you faced, what you liked, how you led your team, and other important points.
- When your interviewers prompt you to ask questions, do so! It shows them that you are passionate about the job.

Sector: IT

Name: Aman Sanghi (2016A7PS0024P)
Company: Uber
Profile: Software Engineer

Recruitment Procedure

- Coding round, 2 Technical Interview.
- The coding round was the toughest and required a sound knowledge of data structures and algorithms. There were 3 questions - one each on Binary Search, Dynamic Programming, and Graphs. 2 out of 3 was the cutoff and only 8 students were to be shortlisted.
- Technical interviews: The first one was a designing round where the interviewer asked me to design a snakes and ladders game and then play it. He asked me to code the same. Further, he asked me to rate the difficulty of the designed game using a probabilistic approach and code that too. It required the use of dynamic programming and some knowledge of graphs. The first round lasted for about an hour.
- They also took a second technical interview which was a problem-solving round. They gave me a problem on bit masking and asked to find the solution set to a pair of equations. This also required dynamic programming and coding this was quite complex. This round lasted for 75 minutes. Finally, 2 students were shortlisted.

Sources of Preparation

- InterviewBit, GFG

Courses and Certification

- DSA

Other Relevant Information

- For the recruitment process of Uber, only competitive programming is required, Core CS courses are not required.

Sector: IT
Name: Samksha Bhardwaj (2015B2A70859P)
Company: Uber
Profile: Software Development Engineer

Recruitment Procedure

- Online Test, Technical Interviews, HR Interview
- Online Test:
    - Consisted of three questions – the first was a fairly straightforward DP question based on finding the lexicographically smallest word in a 2D array of characters, the second was a variation of cycle detection in a graph, the third was a generic implementation question.
    - It's absolutely essential to be able to transform a problem into another - simply practicing well-known problems won't get you too far if you can't recognize them in a different form.
    - Also, test cases matter. There's more than one way to brute force a problem. Using an unordered set where others are using a vector may give you an edge sometimes.
- Technical Interviews:
    - Coding Interview: Mainly to check modularity and readability of code. It lasted for around an hour. A simple question was asked initially, which the interviewer then proceeded to complicate quite a bit. Emphasis was on writing code that didn't need to be changed too much to accommodate additional constraints.
    - Problem Solving Interview: This was pretty hardcore. Again lasted for an hour, was asked complicated questions on arrays, and graphs. Had to write pseudo code for the questions with the time and space complexity for each.
    - I'd highly recommend practicing code on paper, as well as explaining your thought process out loud. Even if you don't get the optimal approach instantly, start with brute force and work your way up to it.
- HR Interview:
    - Generic questions for the most part.
    - Why Uber? What attracts you towards technology? What's the biggest challenge you had to overcome? What expectations do you have from Uber? Etc.

Sources of Preparation

- InterviewBit, GeeksForGeeks, Cracking The Coding Interview

Courses and Certification

- DSA
- OOP; That's pretty much it, to be honest.

Other Relevant Information

- While every subsection of coding problems is recommended, you need to know graphs and dynamic programming thoroughly.
- As far as courses go, Uber is one of the few companies that only care about DSA and OOP – they don't ask any theory, straight implementation.
- Panicking in interviews is a death sentence. Just say stuff you know, don't get fancy with it. A correct, easy solution is better than an incorrect, tricky solution.

Domain

Mechanical

Sector: Mechanical

Name: Anubhav Agrawal(2018H1060223P)

Company: GE

Profile: EEDP

Recruitment Procedure

Initially we had a written test which consisted of aptitude test(50 min- 50 questions) and technical test(30 min -30 questions).The test was conducted by cocubes for us...though it may not be the same for your batches.

In aptitude we had 3 sections: quants, reasoning and English.

English-

4-5 questions from reading comprehension, 2-3 questions from sentence correction, 1 Para jumble , 1-2 questions from prepositions.

Reasoning(20 questions)

2 coding decoding questions , 2 number series questions , 1 puzzle 2 variables(4questions) , Circular arrangement (2-3 questions) ,1-2 syllogism , 1-2 questions based on statements,1 blood relation ,Quants (20 questions)

Major Topics were:

Profit loss , Number System ,Time work + cisterns , General arithmetic problems

Quants were very easy so just practice basic questions from all topics.

Technical-

Topics from which questions were asked:

Thermo ,Metrology(very imp), SOM , FM

Some of the questions that i remember...

Indicator is used to measure which of the following quantities assume its maximum value at equilibrium , Question based on Poisson ratio, Time period of Oscillation(Metacentre formula) , Belt drive question power and force were given we needed to find out no. of belts.

1 question from welding.

 I was shortlisted for both profiles in power and aviation:

I was the first one to be interviewed for an aviation profile. Initially they asked my marks of class 10th, 12th, B.E., Gate Score and about B.E. college. After reading my resume, I was asked to give an intro and to explain any 1 project of my choice. I did a project on gas turbine blade cooling.

So they asked me to explain.

Why did you select this project? The derivation of efficiency as a function of inlet temperature. Then they asked me "do you know what a turbine blade looks like?'' What is trailing edge ,leading edge and chord length and why they are called so.

What is the suction side and pressure side? Derive the pressure variation and on the basis of that decide which will be pressure side and which will be suction side. On which cycle gas turbine works. What turbine blade does? (I drew the energy transfer and conversion diagrams) What are impulse and reaction turbines?

Where are the regions critical in turbine blades and why? What is the stagnation point?What is the difference between static and dynamic pressure?Which quantities did you monitor and why?What were your results?

A few questions from my fem project were:

Questions were:

What are shape functions?How do you number the nodes and why? How to choose shape functions? Solve 1-d and 2-d heat conduction problems using shape functions and verify the answer with conventional methods.

Questions on stress-

strain curve and discussed about dislocations and grain growth. Do you know any of the products of GE?

What difficulties/failures happen in turbines ? Explained them creep, thermal fatigue, pre whirl and stalling.

 GE power Interview:

2 interviewers were sitting in which one was from aviation only.

Explained the same project again.

Draw velocity triangles , Do you know what compressible flows are? What is Mach number?

Which is your favourite subject.(told them cfd but no questions asked as i had many projects on cfd so he was satisfied with the answer) Draw the flow region over turbine blade (means laminar transition and turbulent) Then Some general discussion on the company.

Hr interview:

I was asked if I had any questions to which I asked them 3 Questions.

Explain gas turbine project. How did you decide the cooling hole size and location? How did you proceed with the project?

General HR questions like :

Have you faced any e difficulty because of someone else? How did you tackle the situation? Have you faced any situation in which you just felt blank? How did you deal with the situation? Why do you want to join GE? Where do you see yourself in 5 years?

Sources of Preparation

Fem-jn reddy j nptel lectures(nachiketa tiwari sir), CFD-anderson,malalasekera,patankar, course slides(shyam sunder sir). Gate Notes, youtube videos for general topics like near wall modelling,Y+ etc . For aptitude- placement unit test series,gate notes, oliveboard test series, english-gate notes

Courses and Certification

Python, edx-engineering simulations, catia, national karting, machine learning (from coursera) Certificates did not help me. I suggest you to complete edx course, fem from nptel and university of michigan course.

Other Relevant Information

Write only what you know 100% in resume. I mentioned only 4 projects and 2 mtech subjects in my resume. I did not add ml and karting certifications.

If you are in even a little bit doubt with subject or certification please don't add it on resume.

Sector: Mechanical
Name: Balakrishna Bhat V (2018H1420201P)
Company: General Electric

Profile: Edison Engineer

Recruitment Procedure:

Online test

Online test had 2 sections, Aptitude and Technical

Aptitude had 50 questions, 50minutes and was easy to medium level. Had 3 sections-verbal, Quant and reasoning

Technical had 30 questions, 30 minutes. It was a little hard as the mechanical engineering concepts are vast.

Technical Interview:

Few basic design questions on cantilever beam- SFD and BMD Diagrams and to design the beam based on the bending Moment, Design of a gear

Then the interview went mostly on my work experience-My work was relevant to GE in the area of power plants.

They did ask about my position of responsibilities and Hobbies.

HR Interview:

Questions based on leadership, teamwork and future aspirations

Sources of Preparation

Aptitude- PU Training for practice questions, Concepts and shortcuts from YouTube.

Courses and Certification: N.A

Other Relevant Information

For Interview basic design subjects like SOM, Machine Design and advanced subjects like FEM and Fracture mechanics should be prepared. Questions from thermal concepts can be asked. Relevant projects in these areas should be portrayed in the resume and be well prepared to answer questions on them.

Sector: Mechanical
Name : ARPIT RASTOGI(2018H1420189P)
Company: TATA Advanced Systems Ltd.

Profile: PGET

Recruitment Procedure:

First there was a written test which comprised of 3 sections :

1. Technical

2. Drawing Interpretation

3. Spatial Reasoning

Total paper was for 30 mins and after completing the given section only you can proceed to the successive section. You can go back to any of the previous questions. Paper was easy to moderate.

After that there was a Psychometric test which was non evaluative and was situational based having multiple options to choose from. You have to answer 58 questions in 60 mins.

GD Round:

Then there was one round of GD in which the HR will ask the group to choose a generalized or intensive topic which he will then assign. Don't deviate from the topic and be energetic enough because the HR will be observing each candidate's body language. Speak confidently and your points should be relevant to the topic.

Interview Rounds:

Then the final round was Personal Interview. In Personal Interview 50% questions asked were from technical and your projects or internships if any and rest 50% were HR based questions. Have a complete idea of your projects so that you are able to answer any technical questions fired upon you regarding that. Try to ask a few questions to the panel regarding how your core competency will be in sync with the organization or any other relevant question.

Sources of Preparation:

Brush up your core subjects thoroughly specially SOM, Production, Fluid Mechanics, Kinematics. Go through the engineering drawing interpretation on google.

Sector: Mechanical

Name: Shobhit Nagaich (2018H1410160P)
Company: TASL (TATA Advanced System Limited)
Profile: Post Graduate Engineer Trainee

Recruitment Procedure

- Online Test, GD, Interview(Technical + HR)
- Test had 3 sections (30 min and 30 questions) :
    a. General Engineering
    b. Drawing / plan interpretation
    c. Spatial reasoning
- Group discussion was conducted in 4 groups each having 8 members. GD was of 20 min(5 min thinking time included)
- Interview Questions:
    a. Tell us something which is not their in your resume
    b. Project related question
    c. Tell me about your family
    d. They are not only trying to check your technical skills, moreover they were also focussing your ability to handle the workforce and the ability to explain your point.

Sources of Preparation

Learn GATE syllabus properly, and try to solve some online aptitude questions.

Courses and Certification

I have done courses on design based softwares namely ANSYS, SolidWORKS, Pro-E, MATLAB, AutoCAD

Other Relevant Information

Before going for any company just be aware about the company and its latest ongoing projects

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Sector: Mechanical
Name: Noel Sam John (2016A4PS0199P)
Company: Tata Motors

Profile: Graduate Engineer Trainee

Recruitment Procedure

- **Online Test:** It was a 1 hour test with 2 sections – Quantitative Aptitude and Technical. Equal weightage for both sections.

  The Quant section was comparatively easier than other companies and does not require much preparation. For the Technical part, go through the basics of Mechanical CDC's, especially those from 2nd year. (From about 20 students, around 8 were shortlisted for the Personal Interview round)

- **Personal Interview:**

  There was only one interview round. The questions were mostly based on projects and subjects/electives mentioned on the resume, and follow up questions based on my answers. Be thorough with all points on your resume (including hobbies/ extra – curricular activities). Prepare beforehand for questions on how your interests/ abilities will be beneficial to Tata Motors. (4 students were selected)

Sources of Preparation

PU Aptitude Test series would be more than sufficient for the aptitude section of the Online Test. For Technical questions, class notes/ textbook would suffice. The Made Easy Handbook would be helpful in going through the basics of mechanical subjects.

Courses and Certification

No specific courses required. Just be thorough with the ones mentioned on your resume.

Domain

Pharma

Sector: Pharma
Name: Beulah V (2018H1460324P)
Company: Dr. Reddy's laboratories

Profile: Scientist for oral and parenteral formulations, Analytical scientist for API and formulations, RA analyst for API and formulations.

Recruitment Procedure

1. Online test

It had 30 MCQs of basic pharmaceutical sciences, of UG level and some questions from QBD were also asked. Time given was 30 minutes.

2. Technical round

Questions were like "tell me about yourself" and pharmaceutical questions were asked. Questions were asked from lab project, and tasks were given to know how we troubleshoot problems in our own projects. And application knowledge of QBD was tested.

3. HR round

 Questions were like "tell me about yourself in one word" "what are your hobbies" and some part of our lab project was also discussed. And then after 5 years at what position do you want see yourself. Did u follow any research methodology in your project, like these questions. How you and your lab partner manage to work together etc., were asked. At the end the interviewer asked whether we have any questions.

Sources of Preparation

 I just revised GPAT questions and kinetics for the interview and thorough lab projects.

Other Relevant Information

See the profile expectations they are looking for and prepare accordingly.