



PU Chronicles
SEMESTER-1
AY 2020-21

For Internal Use Only

PREFACE

Placements, for some, it's the one single thing that matters, for others it's just another piece of the college puzzle that shapes our future. Without a doubt, it is a life-changing event or process in a student's college life. Undoubtedly, one of the key factors that contribute to it is guidance from seniors. We have decided to streamline the process a little, so you can focus more on the actual preparation. We hope that you find the PU Chronicles helpful in the same.

Some general tips for placements:

- Think and plan well in advance about the career path you want to pursue.
- Have a clear understanding of what is being expected in the interviews by the sector and then also get an idea about the previous years company-specific details using this book.
- Ensure you understand the rules and choose the companies you appear for wisely.
- Keep your motivation levels and energy high through all the ups and downs. Your enthusiasm plays a key role in the interviews
- Get in touch with alumni and seniors for advice and mentorship, these are people who have been in the same situation before and can give you great advice and support.
- Stay in touch and cooperate with the PU Team, they are there to help you throughout the placement season

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. For instance, a stream that did not do well in a particular year may 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, be the best you, rest will follow!

And rest assured that the Placement Unit is always there for you!

All the Best,
The PU Team



DISCLAIMER

All the feedback is provided by the students who have secured jobs in various organizations. We have tried our best to ensure that every detail in the PU Chronicles (the "Service") is correct.

The Placement Unit assumes no responsibility for errors or omissions in the contents of the Service.

The Placement Unit reserves the right to make additions, deletions, or modifications to the contents of the Service at any time without prior notice.

TABLE OF CONTENTS

A.	Preface		
B.	Disclaimer		
C.	Table of Contents		
D.	List of Organizations (B.E.)		
1.	Addverb Technologies	Robotics	8
2.	Aditya Birla Group	Mechanical/Chemical	15
3.	AlphaGrep Securities	Electronics	22
4.	Alphonso	IT	24
5.	Amazon	IT	25
6.	Analog Devices	Electronics/Embedded	47
7.	Atlassian	IT	54
8.	Axxela Advisory Services LLP	Finance	66
9.	BNY Mellon	IT	68
10.	CodeNation	IT	72
11.	MedPlus/CustomFurnish	Electronics	74
12.	Broadridge	IT	76
13.	Cisco Systems India Pvt. Ltd.	IT	79
14.	Cirel Systems Pvt Ltd	Electronics	80
15.	Ceremorphic	Electronics	84
16.	Cadence	Electronics	87
17.	Byju's	Education	89
18.	Dalberg	Consulting	95
19.	Deutsche Bank	IT	97

21.	Dremio	IT	105
22.	ExxonMobil	Chemical	109
23.	MathWorks	IT	118
24.	Maruti Suzuki	Mechanical/Design	125
25.	Lentra.AI	IT	126
26.	L&T	Mechanical/Design	128
27.	Jivox Software India Pvt Ltd	IT	130
28.	Flipkart	IT/Product Management/ Business Analytics	132
29.	Futures First	Finance	144
30.	Media.net	IT/Product Management	146
31.	Meesho	IT	152
32.	Fiorano Software	IT	154
33.	Indus Insights	Consulting	155
34.	Oracle Corporation	IT	159
35.	Paypal	IT	189
36.	Pokarna Engineered Stone Ltd	Chemical	197
37.	Publicis Sapient	IT	200
38.	Qualcomm	Electronics	206
39.	Searce Inc.	IT/Consulting	213
40.	Sedemac	Electronics/Mechanical/Design	226
41.	Quantiphi	Data Analytics	232
42.	Signalchip Innovations	Electronics	233
43.	Silicon Labs	IT	239
44.	Tekion	IT	241

45.	Texas Instruments India Pvt Ltd	Electronics	251
46.	Udaan	IT	257
47.	ZS Associates Pvt Ltd	IT/Consulting/Business Analytics	267
48.	Zynga Games Network Pvt Ltd	IT	284
E.	List of Organizations (M.E.)		
1.	Amdocs	IT	290
2.	Analog Devices	Electronics	292
3.	Arup	Mechanical/Design	294
4.	Cypress Semiconductors	Mechanical/Design	295
5.	Cadence	Electronics	301
6.	Cisco Systems India Pvt Ltd	IT	302
7.	Energy Exemplar	IT	311
8.	Fiorano	IT	313
9.	NetApp	IT	314
10.	Microchip Technology	Electronics	317
11.	Mercedes Benz Research and Development India	Embedded	318
12.	L&T Infotech	IT	320
13.	Innominds	IT	321
14.	GE India Technology Centre	Mechanical/Design/Embedded	323
15.	NXP Semiconductors	Embedded	327
16.	PayU	IT	348
17.	Pegasystems	IT	350
18.	Qualcomm	IT/Electronics/Embedded	354
19.	ServiceNow	IT	376
21.	Sona Comstar	Mechanical/Design	381



22.	Tejas Networks	IT/Electronics/VLSI	384
23.	Tekion	IT	389
24.	Teradata	IT	393
25.	Wabco India Limited	Mechanical/Design	398
26.	Western Digital(WDC)-Sandisk	Embedded/Electronics	399
27.	ZS Associates Pvt Ltd	IT	409
28.	Oracle Corporation	IT	410



Addverb Technologies

Noida

Robotics

Compensation Offered (CTC) : 1419159 PA

B.E. Mechanical

CGPA: 8.06

Recruitment Procedure

Round 1: Technical Interview

The interview started with me explaining the projects on my resume, in detail. Some of my projects were related to machine learning so he asked me questions about things like stochastic and batch gradient descent, techniques to avoid over-fitting (like regularisation and dropouts), rbf kernels, advantage of deep neural networks over conventional machine learning techniques, convolutional neural networks, etc. Then he also asked me some questions related to permutation and combination.

The interview went on for around 1.5 hours and 4 students were selected for the next round.

Round 2: Technical + HR Interview

The next round was with the CIO. I was asked a few simple questions related to data structures and algorithms and then I was asked to code the algorithm for reversing a linked list, using the three pointer approach. Following these technical questions, some HR questions were also asked like "Why do you want to work with us?", "What do you know about the company?", "Why should we hire you?", etc.

The interview went on for around 30 minutes and 3 students were selected for the next round.

Round 3: Technical + HR Interview

My resume didn't contain any projects specifically related to Robotics, so I had to justify why I could be good match. Then I was asked some questions related to OOP (like overloading, overriding, run-time binding, etc). I was again asked about my projects and had to explain some related concepts.

The interview went on for around 1 hour and no one was rejected.

Round 4: Interview with the CEO

This was mostly casual and he asked some HR questions like "Tell me about yourself" and "Tell me about



a project that you really enjoyed doing"

Important Topics and Subtopics to Remember

Machine Learning, Neural Networks, DSA, OOP.

Sources of Preparation

Machine Learning: Open Elective.

Neural Networks: Coursera courses (Andrew NG). Also, I took a SOP on sentiment analysis and a ML related thesis, which were an added bonus.

DSA: Leetcode, interviewbit, codeforces and codechef.

OOP: Gfgs



Addverb Technologies

Noida

IT

Compensation Offered (CTC) : 1419159 PA

B.E. Computer Science, M.Sc. Physics

CGPA: 7.48

Recruitment Procedure

Note: Round 2 and 3 might be in the wrong order. I don't remember well

All rounds were taken by top management of the organization, i.e the people mentioned in the company website.

Round 1: Technical Interview

The interview started with brief introductions, and then they went through my resume and deliberated on each point. The interviewer didn't have the domain knowledge of my projects but had an overall understanding of the discipline and was able to ask important questions. He went into details of every point mentioned in the resume, even my PS1 project. He asked me to write some nested SQL queries. He explained a brief about the company and their products and we ended the round with some questions.

Round 2: Technical Interview

The interviewer asked about my main projects. He deliberated on why my CGPA wasn't higher. He went on to ask some NLP related questions (easy level) related to word embeddings and stuff. In the end, asked me to code reversing a linked list. (LC easy). We had a good discussion about problems in the industry management space, in which the company works.

Ended the interview with some questions

Round 3: HR Interview

The HR communicated very well. Had a brief discussion about my background. He went on to ask me about how I felt about relocating and remote places. He then asked me why I was interested in the company. He explained the tech stack and answered some specific NLP tech questions, like he knew the tech part of the business as well.

He asked me to name some products from the company and give details about them. Luckily, I had read the website and was able to answer.

He seemed intelligent and we had a good discussion. y

Round 4: CEO Interview

The CEO joined the call and started the interview with the question "What do you not like?". It was to throw



me off. We then had a brief 15 minute interaction and then ended the interview.

Important Topics and Subtopics to Remember

DBMS, DSA, Projects.

Sources of Preparation

Leetcode, GFG, CDCs

Additional comments

Senior members of the management take the interview and therefore focus much more on your resume than DSA. They asked easy DSA and SQL questions. SQL seemed more relevant to them. They will be sure to be thorough with your resume.

Other than that, make sure you go through their products and website. They want to see your interest. Additionally, be sure to have well planned questions for them, and try to engage in discussion. All of the interviewers are more interested in understanding your behaviour than anything else.

Addverb Technologies

Noida

Robotics

Compensation Offered (CTC) : 1419159 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 8.74

Recruitment Procedure

Round 1:

Resume Shortlisting:

Shortlisted candidates had necessary prior experience like projects, internships and were active participants in on-campus technical club activities and fests.

Round 2:

Technical Interview:

Q1: Introduce yourself and tell us how you got interested in robotics?

Q2: Which specialization of robotics are you interested in?

Ans. Perception - (explained what is)

Related Questions: What is SLAM? Explain difference between Visual Inertial Odometry and SLAM. What are the different types of SLAM? Explain what is an essential matrix?

Ans. Answers to the above in the link below.

Q3: Describe your experience of your project on SLAM on an aerial robot. What hardware experience do you have?

Ans. Described in detail entire implementation.

Q4: Probability and Statistics related question

Q5: Probability and Statistics related question

Q6: Logical Reasoning

Q7: Do you have any questions for us?

Round 3: HR + Tech

Q: What is the difference between a microprocessor and microcontroller?

- (Because an Arduino was mentioned in my resume) Explain difference

Q: How is the technical culture on campus?

- Highlight good aspects

Q: Do you have problems working in warehouses and with traveling?

Q: Tell me your masters plans?

Round 4:

Q: Tell me about yourself, your background, your family?



- Personal introduction

Q: Tell me your masters plans?

- None at the moment(explain in detail)

Q: Would you shift to a different company if they offered better pay?

NO!

Round 5: Discussion with CEO

Spoke about company

Q: What can we do to improve the interview process.

- Highlight good aspects and mention minor improvements

Important Topics and Subtopics to Remember

MATH 1, MATH 2, MATH 3, Control Systems, Microprocessors and Interfacing, Digital Image Processing

Sources of Preparation

<https://www.coursera.org/specializations/robotics>, Journal Papers

Additional comments

Club Activities are important and so is your experience in thesis and other research oriented experience





Addverb Technologies

Noida

IT

Compensation Offered (CTC) : 1419159 PA

B.E. Computer Science

CGPA: 7.23

Recruitment Procedure

Round 1: Technical Interview

- a. Questions about Data Structures, Networks, DBMS
- b. Questions related to CGPA

Round 2: Technical Interview

- a. Questions related to Data Structures, Networks, DBMS
- b. Questions related to my PS experience as I had put it
- c. Questions related to CGPA
- d. Discussion about nature of work and type of job

Round 3: HR interview

- a. Questions about CGPA, PoR, Projects
- b. Some more questions related to work in PS experience
- c. Questions about some tech knowledge, USPs
- d. Questions about adjusting with the nature of job

Round 4: Interaction

- a. Discussion about the company
- b. Discussion about interests in Computer Science and projects

Important Topics and Subtopics to Remember

Networks, DSA, DBMS, Python frameworks

Sources of Preparation

- a. lecture slides for CDCs
 - b. docs.python.org, djangogirls.org for python
-

Aditya Birla Group

PAN India

Mechanical

Compensation Offered (CTC) : 600000 PA

B.E. Mechanical, M.Sc.Biological Sciences

CGPA: 6.78

Recruitment Procedure

Round 1- Online test

The test consisted of aptitude questions covering areas like English, quant, data interpretation and each were around 10-15 questions. After that there were 40 questions from the core branch.

Round 2- Group Discussion

This round was an interesting one as it included both a case study and GD. First we were given a case study in which we had to decide what the group should do in terms of present scenario. Like there were 5 businesses which ABG was looking to acquire or buy stake in it so we had to decide what the group should do. This task had to be done within 20-25 minutes after that there was a group discussion based on that. The GD lasted for around 40-45 minutes.

Round 3- Personal Interview

In this round we had to give both the Technical as well as HR interview.

In the technical interview questions were from basic core engineering subjects like machine design and theory of machines. Also there were questions from the elective courses we took for ex. Quality control. After that there was a discussion on our project work and internships we did. All this took about 15-20 minutes.

After this there was HR interview. The questions were basic ones like why do you want to join the organization, your strengths and weaknesses, situation based questions etc. This took place for around 10-15 minutes.

Important Topics and Subtopics to Remember

Don't write anything you don't know about in your resume.

Must Do's - Fluid mechanics, Thermodynamics, PT-1, PT-2

Sources of Preparation

Class notes are the best to prepare. Also look for HR questions from IndiaBix.

Aditya Birla Group

PAN India

Mechanical/Design

Compensation Offered (CTC) : 600000 PA

B.E. Mechanical

CGPA: 6.2

Recruitment Procedure

Round 1: Online Test (90 mins)

MCQ from various topics. Limited time for each topic and no negative marks.

Mechanical: Direct questions from CDC's. Important ones are Manufacturing processes, Mechanics of materials, Thermodynamics and Heat transfer, etc.

Language: Multiple paragraph based questions, vocabulary based questions (synonyms, antonyms etc.) and sentence forming were the important ones.

Aptitude: Standard questions from mathematical and logic reasoning. There was a short course PU had conducted which covered everything related to this type.

Round 2: GD (60-75 mins)

A case study was given to us prior to the start of GD. 30 mins time was given for us to prepare. The case study was on prioritizing which companies to take over from a list based on what Aditya Birla group wanted. First everyone was given 1 min to speak about what and how they have chosen, and in the remaining time we were supposed to discuss and come to a conclusion on which companies would be the best.

Round 3: Technical + HR interview (~45 mins)

1) First the interviewer asked me to introduce myself and tell me about my projects. When I was done he asked me technical questions related to what I worked on.

2) He asked me to explain a topic I learnt that I enjoyed the most in 2 minutes. He also asked follow up questions in that topic.

3) They asked what my future plan was and why I would be working for them. Again follow up questions were asked.

4) Finally the interviewers asked me what color I would be in a crayon box.

Important Topics and Subtopics to Remember

Solid mechanics - all related topics from manufacturing processes to mechanics of materials

Thermodynamics, Heat transfer

Refresh through your projects before the interview rounds. Major portion of technical interview is related to your projects.



Sources of Preparation

CDC textbooks, online resources for Mechanical questions. Aptitude preparation was from PU conducted course.

Additional comments

Prepare for standard HR questions. GD round for me was the most difficult round for me. I should have practiced mock GD before. Otherwise all questions were straightforward. It helped that I was preparing for GATE before.

Aditya Birla Group

Chemical

PAN India

Compensation Offered (CTC) : 600000 PA

B.E. Chemical

CGPA: 7.38

Recruitment Procedure

First Round - Written Test

The test comprised four sections - i) English, ii) Logical Reasoning, iii) Quantitative Ability and iv) Technical Round consisting of questions on Chemical Engineering. Each of these sections had 20 questions with a 20 minute time limit. The test was dissimilar to the other recruitment tests in that the questions once answered couldn't be revisited again. This constraint made the test tricky as this caused the applicants to be economical with their time and skip questions that couldn't be solved in the 1 minute per question time limit.

Second Round - Group Discussion

The GD was in a case study format in which a case study was given to us 30 minutes prior to the commencement of the GD. The case study consisted of five hypothetical companies with information relating to their core competencies, weaknesses and their management. Our objective was to assign these companies from most feasible to worst possible investment option for the Aditya Birla Group and to debate about our respective choices and come to a consensus in the ensuing group discussion.

Third Round - Personal Interview

The interview was taken by two representatives, one from the technical domain and one from the HR domain. The technical questions were from topics such as heat transfer, mass transfer and regarding the work done in internships. The HR questions were about how I handle conflict, situation based questions about how I would manage a team in an adverse scenario and regarding compatibility due to the nature of the job.

Important Topics and Subtopics to Remember

Thermodynamics, Fluid Dynamics, Heat Transfer, Separation Processes 1&2

Sources of Preparation



-
- i) The Chemical Topics pdf provided by the Placement Unit acted as a guideline.
 - ii) The respective textbooks and notes for all the CDCs and DELs
 - iii) Online Gate preparation websites such as examhill.com



Aditya Birla Group

Chemical

PAN India

Compensation Offered (CTC) : 600000 PA

B.E. Chemical

CGPA: 8.71

Recruitment Procedure

Round 1 : Aptitude Test - There were four sections, Communication Skills (english), analytical reasoning, logical reasoning and chemical questions. There were specific time limits for each section and you had to complete that section within that time period and no leftover time would be added to the next section's time. Questions were rather basic for the first three sections but you had to be aware of the time limit, especially for the analytical part where you had to solve small mathematical problems. The chemical section consisted of mostly theory questions. Not rote based theory questions, rather logic based/formula based - for instance they would ask you the significance of a particular symbol in a formula, or how the power of a certain quantity varied in the formula, or what the relationship between two quantities were. Some questions did test your rote knowledge but they were very few in number. There were 1 or 2 numerical questions as well, but they were more on the mathematical side than chemical. For example, we had a question where we had to mix 2 different concentrations of acids to get a third one and the question was to find out the amount of acid needed of each. It could be easily solved within the time limit.

Round 2 : Group Discussion - Unlike other placement processes that I participated in, here you were given a case study beforehand (about 30 mins prior to the actual discussion) and the discussion was to be on the solution to the problem described in the case study. It was slightly related to chemical. It was - Aditya Birla Group is looking to invest a certain amount in some sector. And there were 5/6 companies/industries which had their pros and cons mentioned. According to the information provided, we had to rank them in order of which is the best one to invest in (number 1) and which was the least favourable one to invest in. There was an education sector, power sector, infrastructure sector, etc. The point of the discussion was to agree on a common ranked list for the 5 sectors.

Round 3 : Personal Interview - The interview started with the basics - introduction. Then we moved on to the technical part. Here I was asked a question and given four options to choose from. I was asked about 9-10 of these. They were mostly industry based and chemistry based questions. For example, the unit of turbine heat rate, molecular weight of SO₂, in a combustion reaction which component of flue gas should be measured to calculate oxygen consumption, which of these burners used the largest amount of power, etc. With a little logic, most of these could be solved. Then I was asked two situational questions pertaining to the industry - one was the steps I would need to take to solve a problem of sudden increase in power consumption and another was a typical HR question of how to tackle someone who isn't



contributing to their part of the work properly. The rest of the HR questions were whether I was willing to work onsite, whether I would be willing to relocate, whether I would be inclined towards working in a Greenfield project, etc.

Important Topics and Subtopics to Remember

Fundamental understanding of Heat Transfer, Mass Transfer, Fluid Mechanics, Thermodynamics, chemical reaction kinetics. Basic chemistry principles. Knowledge of all dimensionless numbers.

Sources of Preparation

Textbooks and my notes. Online videos of quick brush ups of the basics. Aptitude practice can be done anywhere online, I used some parts of examly.

Additional comments

Be through with each and every word of your resume. If you have mentioned the word distillation, you must know the definition, examples and applications, some advantages and disadvantages. If you have mentioned some topic in your resume that you are not very sure about / know only in brief, best not to mention it yourself unless and until they ask you themselves.

AlphaGrep Securities

PAN India

Electronics

Compensation Offered (CTC) : 2500000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.31

Recruitment Procedure

Round 1: Codepair Interview

Duration- 1Hr

This round was to judge basic understanding of Verilog and C programming. Since it was a codepair round, my interviewer and I solved a verilog problem and a simple C programming problem together.

Questions-

1. Write the verilog code for a system that takes a serial bit stream as input and returns 1 if the resulting number is divisible by 5, otherwise 0.
2. Write a C code to reverse a string.

Relevant courses - Digital Design, C Programming

Round 2: Design Assignment & Technical Interview

Given the requirements, I was expected to design and synthesize a working system in Verilog and share my work and results with a team within a week.

Design question-

A serial data stream follows the Avalon ST data streaming protocol. The stream is broken into packets of 8bytes. Design a decoder that accepts message packets of size 8bytes and returns decoded messages. Message size may vary from 8 bytes to 32 bytes.

In the technical interview, the focus was mostly on digital design. Common questions on setup/hold time violations, state machines, buffers were discussed.

Interview duration- 1Hr

Round 3: HR

Typical questions like strengths, weaknesses, etc. Some questions about my PS2 work, and why I hadn't landed an offer yet.

Duration: 35min

Round 4: Technical Interview with CTO

This discussion was mostly about team structure. A few questions from C/C++. Discussion on project work. The interviewer was interested in understanding my core technical strengths and professional



interests.

Important Topics and Subtopics to Remember

ADVD, Digital Design, C/C++ basics, Verilog, Computer Architecture

Sources of Preparation

Course Material, look up Question banks for Digital Design Role, NANDLand

The MD usually takes the HR interview, so look up common questions asked by CXOs.

Additional comments

Good communication and collaboration skills would really help with AlphaGrep's hiring process. Be prepared for Codepair Interviews.



Alphonso

Bangalore/Hyderabad/Noida

IT

Compensation Offered (CTC) : 3700000 PA

B.E. Computer Science

CGPA: 7.3

Recruitment Procedure

Interview

Due to COVID-19, the interviews were virtual. We first had a pre-placement talk(Alphonso had one of the most interactive pre-placement talks that I have attended and it was amazing as it helps each student know what exactly they are applying for).

Followed by that, we had an online hackerrank test consisting of algorithmic coding problems, computer science fundamentals and a few machine learning questions. After that I had 3 rounds of interviews assessing my coding skills, computer science fundamentals(more application oriented than theory) and past experiences.

Important Topics and Subtopics to Remember

The DSA topics covered are - Graphs and Trees, Dynamic Programming.

Sources of Preparation

Lecture Slides, Youtube, leetcode, hackerrank, hackerearth

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Computer Science

CGPA: 9.17

Recruitment Procedure

The hiring process consisted of 1 coding test and 4 interview rounds.

Round 1 (Coding Round):

The coding round consisted of a code-debugging section, aptitude questions, and 2 coding questions. The code-debugging section was simple where we had to find the fault in the code due to which wrong output was coming. Aptitude questions were general logical-reasoning questions. The coding questions were also easy. I only remember one question.

Q1. Find an element in a sorted 2-D matrix.

After this round, 57 people were shortlisted for interviews. Due to the current situation of coronavirus, all the interviews were conducted online on the Amazon Chime platform.

Round 2 (Technical):

I was asked three coding questions. I was asked to write the code on the LiveCode site that Amazon uses and discuss the time and space complexity.

Q1. Find the number of disconnected components in a graph.

I first gave a DFS approach by using a visited array but the interviewer asked me to use $O(1)$ space. Then, I suggested changing the node value when we visit the node.

Q2. Populate the next pointer in a binary tree.

I first gave a level order traversal method which required a queue. She then asked me to do it in $O(1)$ space. So, I gave a recursive solution in which we traverse each level before moving forward.

Q3. Given a BST, find the number of arrays that will result in the same BST.

For eg – Given a BST like this: One array is 2 3 4 5 7 6 10. Another array is 2 5 7 6 10 3 4. But this is not valid array – 2 5 10 7 6 3 4. This is because if 10 comes before 7, then 10 can become the root and 7 will become the left child which will result in different BST.

5
/ \
3 7
/\ /\
2 4 6 10

Round 3 (Technical):

The interviewer first asked me some questions on one of the projects that I had done. Then, he asked me two coding questions.

Q1. Given an array where each element denotes the cost, we will take two elements, add them, then insert it back in the array. The cost of the operation is the sum of the cost of both elements. We have to minimize the cost.

Eg: given array as 2, 3, 4, 10. The minimum sum is $5(2+3) + 9(5+4) + 19(9+10) = 33$.

The solution that I gave was to insert all elements in a min-heap (implemented as a priority queue) and then pop two elements from the queue, add them and push it back in the queue. We will do this till the size of the queue becomes 1. He then asked me to write the complete implementation of a priority queue, that is, the push, pop, top, empty, and size functions.

Q2. Devise a stack data structure that performs the following operations in $O(1)$ time – push, pop, top, max element, min element.

I first gave a solution by using three stacks – one for the actual stack, one for min element, and one for the max element. He asked me to optimize the space complexity. So, I gave a solution where we encode the min element in the stack itself.

Round 4 (Technical):

In this interview, I was first asked plenty of details from one of the projects I had listed in my resume. Then, I was asked questions from literally all topics.

Networks and DBMS:

He started with networks and asked me all the steps that happened when I type www.google.com. What kind of errors are possible when I type it. What happens if the server is down/slow and how does the server service this request. The answers he was looking for were web cache lookup, OS cache lookup, DNS lookup and database search for the ip address. He then asked me what happens in the server and possible causes of bottlenecks in servers.

Operating Systems:

Then, he went on to ask what happens in the OS when I type a website's name and how the OS responds to this high priority process. Basically, he was asking about the scheduling policy used for scheduling a high priority process (priority scheduling). He also asked me how will we prevent a process to wait for a long time before getting serviced (Round-robin scheduling).

Object-Oriented Programming (OOP):

Then, he moved on to OOP and asked me about the importance of inheritance and interfaces in OOP.

DSA:

He then asked me two coding questions.

Q1. Given a linked list, return a new linked list such that the order of nodes is $1 \rightarrow n-1 \rightarrow 2 \rightarrow n-2$ and so on. For this, I gave the solution to split the linked list in the middle, reverse the second half and traverse both the halves alternately.

Q2. Given a hashmap, we need to print the hashmap in sorted order.

For this, I didn't know the concept of a linked hash map in Java. He gave me the concept of a linked hashmap as I was stuck. I gave a solution to add the key-value pairs in a vector, sort them, traverse the vector and populate the next pointers in the nodes of hashmap. Then, by just traversing the hashmap, we will get a sorted order of nodes.

Round 5 (Behavioral + Technical):

In this round, the interviewer asked me many behavioral questions. Some of them were about the difficulties I faced in a project, how I solved them, and how I will handle disagreements in a group. Then, he asked me two coding questions.

Q1. Find the number of couplets and triplets in an array whose sum is 0. I gave him the two pointer approach for solving this problem.

Q2. Given a string, I have to find the longest substring with no repeating characters.

This is a basic sliding window problem where the window will only contain non-repeating characters. We will update the max length if the size of the window becomes greater than the max length.

In the last round, the interviewer was more interested in my approach than the code itself. Also, he asked a lot of behavioral questions in the last round. This can be considered as an HR round, although it was not explicitly mentioned anywhere.

Overall, the interviews were fascinating and whenever I got stuck somewhere, the interviewer would guide me in the right direction. Each round lasted around 45-60 mins and the interviewers were very particular about the duration. They didn't extend the interview beyond 60 mins. In the end, 7 people were shortlisted for the job.

Important Topics and Subtopics to Remember

Topics: DSA, OOP, Operating Systems, Computer networks, DBMS.

Subtopics for DSA: Trees, Graphs, DP, Stacks, Queues.

You need a strong hold on the basics of all the above topics. The interviewer can ask you any question related to these topics and even though he might expect you to not know the answer, he is interested in the concepts you use to solve the problem.

Please have a really good idea about the projects you have included in your resume. The interviewers have a lot of knowledge about all topics and can ask plenty of details about your projects.

Sources of Preparation

For DSA: First cover the basics from geeksforgeeks. Then, move on to the company-specific questions available on interviewbit and leetcode.

For OOP: geeksforgeeks contains plenty of materials for basics of OOP.

For Operating Systems: refer to the course material for the theory part. For solving problems, geeksforgeeks contains some problems but not of interview-level.

For Computer Networks: geeksforgeeks for the theory and plenty of problem solving.

For DBMS: geeksforgeeks contains a lot of solved DBS problems. But, in interviews, the focus is more on theory.

Additional comments

Apart from the topics mentioned above, a little knowledge about system designs is helpful. It depends purely on the interviewer if he asks a system design question or not and generally, they are not expected to be asked for campus interviews.

Also, before any interview for a company, be sure to read about the interview experiences available on geeksforgeeks. And read about the company's principles, their work, their founders and current CEOs.

For behavioral questions, have some answers prepared so that you don't keep thinking in the interview. Prepare answers for typical questions like Why "this company"? Your strengths and weaknesses? What makes you special?

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Electrical & Electronics Engineering

CGPA: 9.35

Recruitment Procedure

Round 1 : Technical Interview

The interview started with the interviewer introducing herself followed by me giving a brief introduction.

This was a pure DSA round. I was asked 2 questions.

The first question was a simple tree question where she wanted me to print the left view of a binary tree.

Then after some discussion and code explanation she wanted to know the time and space complexity of my proposed solution.

The second question was also a fairly simple question based on merge sort where she wanted me to create a new sorted array using 2 already sorted arrays.

So the first round wasn't that difficult.

Round 2 : Another coding round

This round was also very similar to the first round. The interviewer introduced himself and then asked me to introduce myself as well.

The interviewer asked 2 questions and both of them were based on DSA.

The first question was an array based question where he gave me an array of size n and each element of the array denoted the size of a bar at the given position. He wanted me to find the maximum water that can collect for the given arrangement if it rains.

So initially I gave him a stack based solution but he was like do you really need a stack. So then I realised that maintaining a simple variable for the maximum height bar encountered till now will be more than enough for solving the problem along with 2 arrays for storing the left max and right max for each element of the array.

The second question was a very simple one where he wanted me to delete a node from a doubly linked list.

Round 3: Another coding round

I was asked three questions in this round.

The first one was a hashing based question where he wanted me to find the longest sequence of consecutive numbers in an unsorted array. Initially I gave him a sorting based solution but he wanted a $O(n)$ solution so that can be done using hashing.

The second question was that I was given numbers from 1 to n and I had to find the number of pairs (i, j) where $1 \leq i \leq j \leq n$, such that the sum of the squares of their digits are equal. I gave him a hashing based solution which involved traversing all the digits of every number. But the interviewer said that he wanted a solution where I do not have to look at all the digits but after some thinking I told him that I don't

think its possible to solve this without looking at all the digits. So then he asked me to code my solution and seemed to be satisfied with my solution.

The third question was a simple question where I had to tell him the time complexity of the snippet that he had given me.

Round 4 : Another coding round

I was strongly hoping that this would be an HR round but the 4th round which ultimately turned out to be the last round was also a coding round.

The interviewer was a very experienced guy and told me about the things he has worked on and also is currently working on. Then he asked me to introduce myself and then like every other round he said lets move to coding.

I was asked only 1 question this round.

It was a simple dynamic programming based question where I had to find the maximum sum possible using contiguous elements in an array. In addition to the sum he also wanted the start index and the end index of the subarray. I came up with an $O(n)$ solution but the interviewer was somehow not convinced with my solution so he spent the remaining interview running the code on various examples and check if it fails any of those examples. Finally he was convinced that my solution was correct and said that this is all for this interview.

I had 4 coding rounds and was expecting the 5th round to be HR but the 5th round did not happen. And finally they took 7 people.

Important Topics and Subtopics to Remember

DSA, OOP must irrespective of the branch.

OS, DBMS also important but non CS people can skip if they don't have sufficient time.

System design also important.

Sources of Preparation

GFG for topics like OOP, OS.

For DBMS you can refer to the slides of the DBMS course taken on campus.

For DSA I had taken a course on GFG for brushing up my basics and then for practice I used to solve questions on leetcode and interviewbit.

I also gave the leetcode weekly contests.

For graphs I watched the MIT OCW videos for understanding the concepts.

Cracking the coding interview book is also a very good resource.

Additional comments

It is important that you prepare yourself for the HR round as well. A basic understanding of system design will also be helpful

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.46

Recruitment Procedure

Each round is 50-60 min each. In each technical round, you are expected to answer the 2 DSA coding questions asked. I had to first explain my approach, and if they agreed with it, I had to write a production-ready code covering all edge cases. Then, you had to mention the time and space complexity of your solution.

Round 1: Technical Interview

The first thing he told me was, "I will not be judging your personality or asking you for an introduction here. If you solve both questions, you go to the next round. That's all."

1Q: Given two numbers m and n, print all numbers between m and n (inclusive) that have the absolute difference of consecutive digits as 1. For example, between 100 and 200, you would have 101, 121, 123, ...
Ans: Recursive function

2Q: Given a number, find the minimum number of squared numbers when summed up gives that number.
Eg: 38 needs 36+1+1 (3 numbers). //hint, not a greedy approach. Think why greedy won't work. Eg: think of how it works for 12
Ans: DP

Round 2: Technical Interview

This interviewer was a lot more nicer than the previous one. He ended the interview by looking through my resume and asking about internships and hobbies.

1Q: Amazon audiophile cost minimiser. Given array of song costs, and given that you have to merge two songs at a time - and that results in new song. You need to merge all the songs and find out the least cost.

Eg: 1 2 3 4 5 (no testcases were given to me)

$1+2 = 3$

$3+3 = 6$

$6+4 = 10$



10+5=15

Cost: 3+6+10+15.

There are other ways to merge as well. Find the minimum cost out of all of those ways.

Ans: minheap. Was also asked complexity of minheapify in the middle.

2Q: Find if a tree A is a subtree of another tree B.

Ans: Popular gfg question. Was asked in order, preorder and post order in the middle.

Round 3: Technical interview + base

1Q: Number n, find the sum of square of its digits. This sum is the new n. bool valid(int n) returns true if n ever becomes 1, and false otherwise. Do this in $O(1)$ space.

Ans: A form of slow-fast pointer. If f(n) returns the sum of square of digits of n, then slow pointer is f(n), fast pointer is f(f(n)). Was asked use of slow fast pointer method in the middle.

2Q: Implement a stack with $O(1)$ push, pop top and getmin.

Ans: Either use two stacks, or use an augmented stack that stores the rolling minimum as well as the data.

Then, the interviewer asked me my favorite subject (I said OS), and proceeded to ask some basic questions from it like what was a thread, process, differences between them etc. Then he asked me some trickier OS questions. Then, he asked me basic OOP and DBMS(how a B+ tree works, what the difference between B and B+ tree is).

Round 4: Bar raiser round

Basically a weird combination of HR and technical rounds, by two experienced people.

1Q: Write code for finding out doublets and triplets who form sum 0 in an array. Now, combine the code for the doublet into the triplet.

Ans: maps

Then, it was things like how to improve upon the last project you worked on, what would you have done different, a project out of your comfort zone, etc. HR questions where they asked us to follow the STAR method and give a proper instance, preferably with a project to back our claim up.

Important Topics and Subtopics to Remember

Data structures and algorithms, some OOP, OS and DBMS.



Sources of Preparation

Introduction to Algorithms - MIT opencourse ware course (youtube), Geeks for geeks practice questions on each important data structure.

OOP, OS, DBMS - only basics are asked.

Additional comments

If you're a non CS student, have an answer ready about why you're going into IT.

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Computer Science

CGPA: 8.81

Recruitment Procedure

Round 1: Online test

The online test had 4 parts

The first part had 8-10 code snippets which had some error in it. A total of 20 minutes were given to solve the questions.

The second part had 2 coding questions. Both the questions were ad hoc problems which were fairly easy. A total of 70 minutes were given to solve them which was more than enough as the questions could easily solved in 20-30 minutes.

The third part was a behavioural test which asked some questions to understand the thinking of the candidate.

The fourth part was an aptitude test and around 20 questions which had to solved in 35 minutes. The questions were of moderate difficulty. Again there was more than enough time given to solve all of the questions.

Round 2: Interview Round 1

All the questions asked were based on DSA. A total of 4 questions were asked. Most of the questions were based on trees and/or dp.

Round 3: Interview Round 2

Again all the questions in this round were based on DSA. A total of 3 questions were asked in this round. The questions were mostly based on dp with some also involving string traversal.

Round 4: Interview Round 3

Most of the questions asked in this round were based on DSA again and some questions of OS were also asked. The DSA questions asked in this round were tougher than the previous rounds involving more complex dynamic programming approaches. In terms of OS, all the questions asked were quite basic. There was questions about semaphores and a few questions about how a cache works and various algorithms used while removing an element from cache.

Round 5: Interview Round 4

In this round the interviewer focussed mainly on my resume and inquired about some of the summer internship that I had done and asked me to describe my favourite project. So it is important to have good

understanding of all the projects and internship projects that you mention in your resume. Apart from there were some HR type questions as well as a very basic DSA question.

Links to some of the questions asked:

<https://www.geeksforgeeks.org/minimum-time-to-burn-a-tree-starting-from-a-leaf-node/>

<https://leetcode.com/problems/product-of-array-except-self/>

Find shortest string which has both A & B (given) as substrings (couldn't find the link but is similar to edit distance: <https://www.geeksforgeeks.org/edit-distance-dp-5/>)

<https://www.geeksforgeeks.org/lru-cache-implementation/>

<https://www.geeksforgeeks.org/number-of-ways-to-get-a-given-sum-with-n-number-of-m-faced-dices/>

<https://www.geeksforgeeks.org/number-of-palindromic-paths-in-a-matrix/>

Important Topics and Subtopics to Remember

Must have a good grip on DSA.

Must know basics of OS, OOP, DBMS.

In case of DSA, give special attention to graphs, trees and dynamic programming with all three subtopics asked heavily by most companies.

Sources of Preparation

InterviewBit, Leetcode and GeekForGeeks should be enough for DSA. Try to solve all the questions on InterviewBit and most of the medium difficulty questions on Leetcode. Do take a look at hard questions too but they are not necessarily asked during placements.

For OOP and DBMS, GeekForGeeks or class slides/notes should be sufficient.

For DBMS, Sanchit Jain's video series on YouTube should be enough.

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Computer Science

CGPA: 9.02

Recruitment Procedure

Coding Round: 1 question based on tree and other on map.

Interview Round 1: DSA based round. 1 question of Greedy and 1 question of Tree.

Interview Round 2: DSA and OOP. For DSA trie based question was asked and one question related to Graph (connected components)

Interview Round 3: General questions related to OOP and OS. Questions related to projects & internships.

After that DSA questions were asked (one was related to Stack)

Interview Round 4: Questions deeply based on the tech stack used for projects and internships. Others questions were related to DSA, OOP and OS.

Important Topics and Subtopics to Remember

DSA (Trees, Graphs, DP, Greedy), OS, OOP, DBMS

Sources of Preparation

Codeforces, InterviewBit, LeetCode, GeeksForGeeks

Additional comments

Knowledge related to work of projects and internships done

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Computer Science, M.Sc.Economics

CGPA: 7.8

Recruitment Procedure

Round 1: Technical Interview:

The interview was scheduled to last for 1 hour. It started at around 8am and the interviewer was polite and introduced himself. He then told me he would ask me two questions and then with the remaining time, I was free to ask him questions if I had any.

Both questions were on DSA itself.

The interviewer asked me to first describe my approach and optimize it, and once I had then to code it into a screenshare page so that he could see as well.

The questions were:

1)<https://leetcode.com/problems/minimum-number-of-arrows-to-burst-balloons/>

2)Given inputs of the form:

a/b = 4.5

a/c = 4.3

b/d = 5.2

You are asked to return the value of a/d. The optimal solution for this will be obtained by doing a DFS.

I was not able to solve the first question optimally but I did get the second one correct. But that wasn't enough to get me through to the next round.

Important Topics and Subtopics to Remember

Data structures and algorithms, Object Oriented Programming

Sources of Preparation

Interviewbit, GeeksforGeeks Leetcode

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Computer Science

CGPA: 6.28

Recruitment Procedure

Round 1: Online coding test. The assessment consisted of four components, a code debugging section (20 minutes), a coding test (70 minutes), a workstyles assessment (20 minutes) and a reasoning ability section (35 minutes). There were 2 coding questions, which were repeated mostly, but not same for all. I had one question of maps and sets and another one of graph, <https://leetcode.com/problems/critical-connections-in-a-network/> . 21 students were shortlisted in this round.

Round 2: Technical interview. Started with brief introduction . Then 2 coding questions were asked . <https://practice.geeksforgeeks.org/problems/alien-dictionary/1> . <https://leetcode.com/problems/asteroid-collision/> .

Round 3: Technical Interview . Started with an introduction . Then there was a discussion on my internship project and some personal projects . Then only one coding question was asked . The question was based on BFS concept.

Round 4: Technical Interview . Started with an introduction . A basic HR question was asked and then there was a deep discussion on one of my internship projects . Then a coding question was asked . Similar to this question <https://leetcode.com/problems/top-k-frequent-elements/> .
Total 6 students received the offer .

Important Topics and Subtopics to Remember

DSA, Database, Basic OOPs and Networks concept

Sources of Preparation

Leetcode, GeeksForGeeks, InterviewBit

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Electronics & Communication Engineering, M.Sc.Chemistry

CGPA: 7.7

Recruitment Procedure

Round 1: Technical Interview

Duration: 45 mins

Number of Ques: 2

Platform: Amazon Chime.

Topics: DSA(Dynamic Programming)

The interviewer introduced himself and asked me to introduce myself. After a short introduction he jumped straight to the question. Round was completely DSA based and complete code was required for both problems.

Ques 1: 0-1 Knapsack

Its a standard dynamic programming

question(<https://www.geeksforgeeks.org/0-1-knapsack-problem-dp-10/>). Optimal DP solution was expected with space and time complexities.

Ques 2: Find the minimum cost required to make Array A similar to Array B.

Link:

(<https://www.geeksforgeeks.org/minimum-cost-required-to-rearrange-a-given-array-to-make-it-equal-to-an-other-given-array/>)

Its a variation of LCS problem, and Time Complexity: $O(m*n)$ and Space complexity $O(n)$ was accepted.

Tip: You can build up the solution from brute force but if you know the optimal solution. Its better to code that directly because the interview duration of 45 mins was followed strictly for the first round.

Round 2: Technical and Resume based Interview.

Duration: 45 mins - 1 hr

Interviewer was young and polite. He introduced himself. Next after I introduced myself he asked me to explain the projects mentioned in my resume. After a brief explanation he picked one project and asked a few technical questions.

Puzzle: <https://www.geeksforgeeks.org/puzzle-21-3-ants-and-triangle/>

DSA;

Q1. The question was a variation of this problem

(<https://www.geeksforgeeks.org/minimum-time-required-so-that-all-oranges-become-rotten/>)

Ans: BFS solution was accepted.

Q2. There was another question related to strings. But unfortunately I can't recall it.

Round 3: Technical cum behavioral Interview.

Interviewer was young, he introduced himself and then after I introduced we jumped straight to the resume. He asked me a few technical questions. and then some behavioral questions.

Duration: 45 mins - 1 hr

Q1. Tell me about a situation where you had to solve a difficult problem?

Q2. Tell me about a time when you made a mistake, and what did you learn from it?

Q3. Tell me about a time when you took a calculated risk under strict deadlines. How did it go ?

Answers: Try to answer these questions by giving examples from your projects/work experience mentioned on Resume. Keep it professional and technical.

While answering these questions keep in mind the Amazon leadership principles.

Q4: He asked about the stack data structure and its properties?He then asked me to design a data structure with $O(1)$ push $O(1)$ pop and $O(1)$ find and delete the middle element.

Answer: <https://www.geeksforgeeks.org/design-a-stack-with-find-middle-operation/>

Tip: Stick to the OOP principles while solving such questions. If you have time write the unit testing for the code. (<https://betterprogramming.pub/13-tips-for-writing-useful-unit-tests-ca20706b5368>)

Since this was supposed to be the last round he went and asked me if I had any questions for him. This is your opportunity to show the interviewer, your interest in the company.

I asked him:-

1. How are the Amazon's Leadership Principles followed through everyday tasks at Amazon?
2. As a new hire, in what all ways will I get to contribute in a project ?

Later he asked me about any feedback, I would like to give. So I briefly told him about the whole interview experience and how polite the interviewers were and in the end I asked for his feedback for me which he gave happily.

That was it!

6 people were selected.

General Tips:

-
1. Never write anything on your resume that you are not completely aware about.
 2. I started coding around a year before my placement date. If you are someone who doesn't know where to start from. There are a bunch of online DSA courses from Demux/codingninjas/codingblocks. If you are sure that this is the job profile you want. Its always good to start as early as possible.
 3. Make sure you atleast do 70% of the interviewbit problems.

Important Topics and Subtopics to Remember

Tips: Write only things that you are sure about. You won't be asked DBMS or OOP if you havn't written them in resume.

Must Know subjects:

DSA, OOP.

Sources of Preparation

1. DSA:
 - 1.1) Started with HACKERANK tracks on Data structure and alogrithms.
 - 1.2) Interview bit is a great place to start your interview prep if you already have some coding experience.
 - 1.3) Graphs(<https://www.hackerearth.com/practice/algorithms/graphs/graph-representation/tutorial/>)
 - 1.4) Leetcode- did around 150 top interview questions(medium to easy-hard difficulty)
 - 1.5) gfg (company wise questions)
2. OOP - prepared from gfg (<https://www.geeksforgeeks.org/oops-object-oriented-design/>)

Additional comments

Go through amazon leadership principles. Your non technical questions should be answered keeping these principles in mind(<https://www.amazon.jobs/en/principles>).

Non-technical questions are mostly asked from this:

[https://leetcode.com/discuss/interview-question/437631/Amazon-Leadership-Principle-\(Behavioral\)-Questions](https://leetcode.com/discuss/interview-question/437631/Amazon-Leadership-Principle-(Behavioral)-Questions)

General Advice: Its seen that Day 0 and Day 1 companies don't really focus on non DSA subjects. So its a golden opportunity for Non-CS students to crack the interviews.

Other subjects are not required for Amazon but still mentioning good resources for preparation.

3. OS(Operating Systems): College lecture slides(can be found on DC), gfg -

<https://www.geeksforgeeks.org/last-minute-notes-operating-systems/>

4. DBMS: Not usually asked to a non CS student. But its always good to prepare the basics. You can prepare this from any youtube channel, nptel, or college slides/videos. Topics-(ACID properties, keys, joins, Normalizations)

5. System Design: <https://youtube.com/playlist?list=PLMCXHnjXnTnvo6aISjVkgxV-VH6EPyvoX> , how to design twitter(<https://www.youtube.com/watch?v=KmAyPUv9gOY>)

Prepare in the order: DSA > OOP > OS/DBMS > Comp. Networks/System Design.

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Electronics & Communication Engineering

CGPA: 8.19

Recruitment Procedure

ONLINE ASSESSMENT

Round 0: Online Assessment (OA)

It had 4 sections –

- a. Code debugging (in C++ or Java) - These were fairly simple.
- b. Coding - This had two questions. Generally questions in this section come from a list of standard Amazon OA coding questions available online (on Leetcode Discuss).

My questions were:

- i. Search for a number in a row-wise and column-wise sorted matrix
- ii. Find critical connections in a network.
- c. Aptitude – fairly simple questions like “X word is Y in a code language, what is W word in that same code” and data interpretation questions. But there were many questions, so speed was the key in this section.
- d. Work style assessment – Behavioural type questions. Consisted of many pairs of statements, you had to grade yourself on each pair. Read the Leadership Principles, but otherwise no real prep required for this section. Answer the questions seriously.

INTERVIEWS

Note:

- For prep for behavioural questions in interviews, go over all the Amazon Leadership Principles, think of examples from your life for each leadership principle, be able to explain them in the STAR format. You can also look up general behavioural questions asked in SDE interviews and think of answers for them.
- It is a good idea to think through examples/situations that you would describe in answer to behavioural questions, beforehand so that they're in your mind, because the questions are not always easy and it's a little difficult to sift through everything relevant and arrive at the best answer on the spot. However, try not to memorise or make the entire answer look rehearsed. Also, you might have to think on your feet too as you can't imagine every question/follow-up that can be asked.
- Difficulty of coding questions does not necessarily increase as rounds progress. One could have harder questions in the first interview, easier ones in the second. It depends on the interviewers.
- In the following description of interview rounds, 'Introduction' refers to the answer to a 'Tell me about



yourself' type question.

- Amazon interviewers test you for Leadership Principles in all your rounds. All of them will be gauging whether you reflect those principles.

Round 1: Coding round + Behavioural

45-60min long.

This round had Introduction + 1 or 2 behavioural questions + 2 coding questions.

Coding questions:

1. Given n as the number of pairs of parentheses (i.e. where '(' and ')' makes one pair), generate all valid parentheses strings.
2. Given a string, which is a series of numbers where this series is an AP with common difference of 1, and one number from the AP is missing, find the missing number.

For each coding question, there was explanation of solution, coding, and discussion of time and space complexity. Possible optimisation was discussed for the questions at the end.

Topic hints for the coding questions:

Q1 and Q2: I gave a recursive solution for both.

Round 2: Coding round + Behavioural

45min long.

This round had 1 or 2 behavioural questions + 2 coding questions. The coding questions were simpler in this round.

Coding questions:

1. Find the start and end position of occurrence of a particular key in a sorted array
2. There's a coaching class with one classroom. There are n teachers who want to teach in particular time slots, indicated by (start time, end time) for each teacher. You want to schedule it such that you maximise the number of teachers who get to teach.

In the second question, I was considering a DP solution, but the interviewer immediately said that he doesn't want a DP solution and I should think more on the sorting front.

For each coding question, there was explanation of solution, coding, and discussion of time and space complexity.

Topic hints for the coding questions:

Q1. Binary search

Q2. Sorting

Round 3: Behavioural and Resume Discussion + Coding Round

45-60min long.

This round was more focused on behavioural questions. It had Introduction + Multiple behavioural questions + Resume discussion + 1 coding question.

I was asked to describe in detail any one 'pet project' from the projects I'd written in my resume (it was an infinite auto-scroll image slider using React). I was asked if an alternate implementation suggested by the interviewer would/wouldn't have worked.

As part of my answer to one of the questions, I had mentioned that I worked alone on one of my internship projects. So at one point the interviewer said that he had just seen another candidate who interned at the same company as I did, who also listed this very project that I had listed. Presumably this was to test how I would handle being questioned like this, and I calmly answered it.

Further, there were behavioural questions like:

1. Tell me about some challenge you faced during your internship, how you tackled it, etc.
2. Give me an example of when you took a calculated risk (this was a particularly difficult question for me)

The interviewer didn't seem easily satisfied by my answers to the behavioural questions, but I tried my best to answer them.

Coding question:

There were some strings given. Each string was in the format ' $a < b$ ' or ' $c > b$ ', where a, b, c etc. are variables, and they can be anything from a-z (lowercase letters only). You have to determine if this set of given relations can coexist.

There was explanation of solution, coding, and discussion of time and space complexity.

Topic hint for the coding question:

Graphs, detecting cycle

Important Topics and Subtopics to Remember

DSA - Recursion and backtracking, DP, Graphs, Trees, Sorting, Binary Search

Sources of Preparation

Demux Academy classes, Leetcode, Interviewbit, GeeksForGeeks



Additional comments

Go through past interview experiences for any company that you're sitting for. GeeksForGeeks and Leetcode Discuss are good sources for this.

Amazon

Hyderabad, Bangalore, Delhi, Pune, Chennai

IT

Compensation Offered (CTC) : 3197000 PA

B.E. Electronics & Instrumentation Engineering, M.Sc.Physics

CGPA: 7.3

Recruitment Procedure

Round 1

Coding Test - 2hr30min

The assessment consisted of four components, a code debugging section (20 minutes), a coding test (70 minutes), a work styles assessment (20 minutes), and a reasoning ability section (35 minutes).

Interview round

I had three interviews all on the same day

Interview 1 - 1hr

2 questions of trees and 1 on stack. This round is taken by SDE2 and is quite easy. You just need to stick to your basics and solve the questions

Interview 2 - 1hr

I had one question on advance binary search. After I solved the question we had a discussion on some of my projects and the tools which I used in each of them.

Interview 3 - 1hr30min

Interviewer: Select any one of your projects, we will then discuss it.

We discussed about one of my project in detail and he asked me in depth questions to test my knowledge. He then asked me to design a system to retrieve data from a database. As I was from electronics background I used OOP and simple algorithms to create it instead of getting into DBMS and he was fine with it. He just wanted to look at my approach and how I solved the edge cases.

Important Topics and Subtopics to Remember

Data Structures

Algorithms

OOP

Sources of Preparation

geeksforgeeks

leetcode

Interviewbit



Analog Devices

Bangalore
Electronics

Compensation Offered (CTC) : 2400000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.48

Recruitment Procedure

Round 1: Written Test

A Subjective style test focusing solely on electronics for the digital profiles. Handwritten answers were uploaded for most questions. Some needed a simple one line typed answer.

Focus was largely on DD with questions on combinational circuits and counters. There were a few questions involving OpAmps, timing diagrams and Verilog.

Round 2: Technical Interview

Interviewers has prepared a set of questions on general electronics topics including OpAmps, RC Circuits, Filters, DD, Microprocessors and Programming in C. They asked questions on CompArch based on projects on the given resume. They also asked about various tools I was familiar with using and my comfort level in adapting.

Interviewers were very nice and encouraging. They really put me at ease.

Round 3: HR Round

Questions about MS Plans, Career Goals, Comfort with extensive travel (the role in question needs travel) and why AD and not Qualcomm or TI.

Important Topics and Subtopics to Remember

DD: Counters, Combinational circuits using MUX, Decoder etc. State Diagrams and FSM.

MuP: Interrupts, ASM Programming, Memory/Cache

CompArch: Pipelines. Cache/Memory



ED/ADVD: CMOS structure and derivation of characteristic equations. CMOS gates and logic. How to make it faster/consume less power etc.

Analog Electronics: Filters, Basic OpAmp Circuits, Diodes and BJTs in circuit, RC.

Sources of Preparation

Course Material and notes. Prescribed text books. Slides. Recorded lectures of 3-2.

Additional comments

Be enthusiastic. I spent a lot of time talking about the role itself and the challenges it would bring as it was a rather unique profile. Allowed for a rapport to form which led to more technical questions relevant to the specific role. Also, talk about your past work positively.

Please don't hesitate to contact PU in case of a difficult spot, I faced some technical issues on the day and PU helped gloss things over.

Analog Devices

Bangalore

Embedded

Compensation Offered (CTC) : 2500000 PA

B.E. Electronics & Communication Engineering

CGPA: 7.73

Recruitment Procedure

There were total 4 distinct interview rounds (3 technical and 1 HR). First two technical rounds were conducted back-to-back. 3rd technical round was with Mr. Srinivas, who is the head of software development in Analog Devices (Bangalore).

Round 1: Technical Interview

The interview started with a brief introduction of mine and was quickly succeeded by the questions. The starting point of the questions was what was asked in the test that I had given the previous day and then there were numerous follow-up questions. This question - follow-up procedure happened about 3-4 times. All of these were based on C/C++ concepts and really did check the fundamental understanding of the concepts. A few questions that I can recall were about using pointers and arrays interchangeably, function overloading, how data is stored in memory, cache mappings (direct mapped, set-associative and fully associative; I was asked which one would be optimal for a given scenario and which replacement technique should be used in order to minimize the number of cache misses). I was also asked to explain the work I did in Device Drivers domain while interning at Shakti Processors over the summers.

Round 2: Technical Interview

This round was immediately after the previous one, with about a 5 minute gap in between. Consisted of, yet again, C/C++ programming and a few Digital Signal Processing questions. I was asked to share my screen and live code for a few problems that they gave; as mentioned below

Question1 --

Write a program to find the maximum number of continuous 1s in an array of numbers (only 1s or 0s). Next was verbally describing how one can compress this information and then to modify the previous code to perform the said task. Further addition was to generalize the compression code to work for an array containing any number.

Question2 --

Write a program to check whether all opened brackets are closed (balanced) and done so in order.
Ex. [(){}] --> Balanced

`[({})]` --> Un-Balanced

Rest were DSP based question, about Fourier Transforms, z-domain representation, poles and zeros, etc. I was the only one who cleared these two rounds and was shortlisted for the next rounds (for Embedded profile).

Round 3: Technical Round

The round began with a very warm introduction by Mr. Srinivas, who was the only interviewer (He is also the head of software development department in ADI Bangalore). He asked to explain my approach for a few aptitude questions and then asked me to elaborate on a few things in my resume; about my work with QEMU (an open-source hypervisor), my tenure as the Operations Head of Developers' Society and about the IoT projects on my resume. After about 40 minutes of discussion, he started explaining the work at Analog Devices, the software team and it's job, etc. Overall, this was the best part of the hiring process as sir was very welcoming and ensured that I was really comfortable talking to him.

Round 4: HR

Generic HR round.

Important Topics and Subtopics to Remember

C/C++ fundamentals, Digital Signal Processing fundamentals

Sources of Preparation

GeeksForGeeks, Hackerrank Practice, DSP class notes

Additional comments

I found that the questions asked were very much conceptual in nature, and required careful analysis of the situation. Advanced topics, such as STL/OOP are irrelevant as they are hardly used in low-level firmware programming. Just focus on your fundamentals and cracking the interview shouldn't be difficult.

Also, twice I was asked to justify why I had a low CGPA, so be prepared with to answer that if yours is less than 8/8.5 as well!

Analog Devices

Bangalore

Electronics

Compensation Offered (CTC) : 2500000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 8.14

Recruitment Procedure

For this role, there was a written test, a resume shortlist, 4 technical interview rounds, followed by an HR round.

Round 1: Technical Written Test: The test included questions from various topics in digital design and some general aptitude questions. Fundamental course knowledge is sufficient to tackle these questions as they have small tweaks and changes made to them which are important to note. Practicing common questions like a divide by 'n' counter (with various duty cycles), state diagrams, timing waveforms, setup, hold time related questions, etc. certainly help in having an edge in these tests. You may not be able to solve all the questions on the sheet due to the lack of time, I certainly wasn't able to, so go through the entire sheet once, and pick the ones you're strongest at.

Round 2: Resume Shortlist: Having a resume which showcases the extra work you've done which is relevant to the role is key in this step. Try not to include too many details in your resume, that tends to crowd their thought and reflects poorly, especially when you aren't aware completely of what you've included in your resume. I had only 3 projects mentioned in my resume, one related to computer architecture, one in embedded systems and one in electronics in general.

Round 3: Technical Interview: In this round, I was interviewed by an employee from the embedded sphere. He quizzed me on various concepts related to embedded systems, from the distinction between RISC and CISC computing, their applications, their merits and demerits, to other concepts in embedded C/C programming, certain common communication protocols (I2C, UART, SPI, etc) and their applications, some questions regarding my project (since it was also in the embedded sphere). This was a good interview, as I knew most of what the interviewer asked me. Familiarity with my project also helped immensely. This lasted for ~1 hour.

Round 4: Technical Interview: This round mainly focused on concepts from digital design and some computer architecture. There were questions based on meta-stability, timing constraints (setup and hold conditions) and some small tweaks, formation of specific circuits, Verilog coding, some concepts of C++ and Python (the meaning of #if, #else statements, volatile data types, synthesizable vs non-synthesizable code in Verilog, etc.) and their pros and cons (also the relevant applications). He also asked some questions based on counters, synchronisers, circuit power consumption, and some basic computer

architecture concepts such as pipelining, stalls, datapath design, etc.

This interview went pretty smoothly too, though there were a couple of instances where I didn't know an answer, but the interviewer tried nudging me in the right direction to see if I can work them out logically, which did work some times. This round went on for an hour.

Round 5: Technical Interview: This round had a lot of brain teasers that I was given to solve, and some concepts from signals and systems. I was honest and mentioned to the interviewer that signals and systems isn't something I'm very comfortable with, and he had no issue asking me questions from other domains. After all these, he asked me some algorithm/thought experiment based questions that had to be implemented in pseudo-code (for example a log base 2 calculator). In this round, the approach to my answers mattered a lot. He asked me to be vocal about my thought process. So, even though I couldn't answer all the brain teasers, I think the interviewer was satisfied with how I was approaching them, and mentioned that the interview went well. This too lasted one hour.

Round 6: Technical Interview: This was an interview with the head of the department. This was more of a general conversation, which started with questions based on my project and led into a range of topics in the technical field. I've followed tech news closely for over 5 years now, so I found this interview to be a lot of fun in fact. Keeping a cool head and voicing my opinion worked well in this round. This interview lasted close to 40 minutes.

Round 7: HR Interview: This round was similar to most other HR interviews. Common questions such as "Give me one strength and weakness of yours", "Why do you want this role/company", "What are your plans for the future". "Give me an instance when you were out of your comfort zone", and other questions along the same line. This was a fairly comfortable interview, which lasted for ~30 minutes, at the end of which the HR manager told me I was hired.

Important Topics and Subtopics to Remember

- Digital design: Making common circuits, meta-stability, sequential logic, power draw, etc
- Embedded systems: RISC and CISC concepts, communication protocols, applications, embedded optimisations, etc
- Computer architecture: datapath design, pipelining, priority levels, etc
- Signals and systems
- Basics of coding (irrespective of language)

Sources of Preparation

- The course material covered in classes is pretty thorough, if you're well versed with them, it's a good support for the interviews (use the textbooks prescribed in the courses)
- vlsi-expert.com for static timing analysis theory and example questions
- Various interview questions for the relevant fields can be found on Google itself (ex: asic.co.in)
- Programming concepts from various sources (StackOverflow, GeeksForGeeks, TutorialsPoint etc)



Additional comments

Be confident, and don't hesitate to let the interviewers know that you don't know something after you've given it sufficient thought. Also, be 100% sure of the terms you're using when you're talking. These are very knowledgeable people who will most likely know most of what you're referring to, so they may ask you to explain something you've said earlier.

Atlassian

Bangalore

IT

Compensation Offered (CTC) : 5175688 PA

B.E. Computer Science

CGPA: 9.05

Recruitment Procedure

Round 1: Technical Interview

The interview began with me describing one of the projects I had listed on my resume.

This was followed by 3 questions based on DSA.

Question 1: Find all the diagonal sums in a Binary Tree

Question 2: A graph related question which required a slightly modified Depth First Search to solve

Question 3: A variant of the buying and selling stocks problem where only 1 stock can be held at a time and 2 transactions can't occur on the same day

Round 2: Technical Interview

The emphasis in this round was on System Design and subjects apart from DSA.

The interviewer first asked a couple of SQL questions which could be solved using Nested Queries.

This was followed by questions related to DBMS concepts like Normalization, SQL vs NoSQL

The interviewer then asked an OS question related to caches and Write Through policy

Finally there was a system design question on designing a tagging system similar to the one used on social media sites like Twitter which I answered primarily from a DBMS and scalability point of view

Round 3: Values Interview

This round is all about determining whether you are a good fit to the company culture based on the 5 Atlassian Values.

The round is basically a set of questions related to hypothetical situations and past experiences where your answers have to align with the company values.

It's important to be aware of the company values and answer the questions genuinely and with past experiences to back it up if possible

Important Topics and Subtopics to Remember

DSA - Trees, Graphs, Sorting

DBMS - Normalization, ACID properties, SQL queries

OS - Cache, Memory Management

OOP - Fundamentals and differences between OOP in C++/Java

System Design



Sources of Preparation

InterviewBit, Leetcode - DSA

Respective Course Slides - DBMS, OS, OOP

Previous Questions - System Design



Atlassian

Bangalore

IT

Compensation Offered (CTC) : 5175688 PA

B.E. Computer Science

CGPA: 9.13

Recruitment Procedure

Round 0: Coding test

Duration: 1.5 hours

Topics: DSA (Maps, Sets, Binary Search)

This round had 3 questions

1st question: Find the number of swaps required to convert one half of a string to an anagram of the second half

2nd question: Given an array of consecutive differences between elements, and given an upper limit and lower limit, find the number of sequences which have all elements within the given limits and which had elements following the differences from the differences array

3rd question: Given a list of cities and their coordinates, given certain queries of city names, for each queried city find the closest city to it sharing at least one coordinate (If there exists no city like that, return None)

Round 1: Technical Interview 1

This round had questions testing knowledge of different CS subjects including OS, OOP, Networks, DBMS and DSA. The interviewer was very patient and gave hints wherever required. Some of the questions from the interview were as follows:

OS: Maximum size of heap for a given program, concept of Virtual memory, Discussion on 32-bit and 64-bit processors, differences between a process and a thread

OOP: Size of an empty C++ class (he asked me what my favourite language was and then asked this question when I answered C++), Differences between different objected-oriented languages (JAVA, C++, Python) and when to use which

Networks: Explain the process of fetching a web page when you type in a website name, how does your computer know the IP address from the name of the website, how does HTTP request look like, why is your machine not a server (difference between a server and a client), sockets

DBMS: What exactly is a database, what are relations, how do two tables communicate

DSA: (This only lasted for 5 mins btw) Given an array, find the K-th largest element without using extra space (K-th order statistics)[This question impressed him as he was not expecting me to come up with the solution] (look it up)

The interview flowed quite naturally as a discussion and although I remembered very little from OS and Networks, we had a really good discussion. The interview ended with a 15-minute discussion on

Atlassian.

Round 2: Technical Interview 2

This round focussed on resume discussion and System design. The interviewer asked me to design WhatsApp (as I used it regularly): this was not a harsh interview at all and he only asked me to mention and use concepts I know of (mention OOP classes and Database tables). We also talked about the high-level aspects including gateways and servers etc and he asked me to present tradeoffs between the approaches as we proceeded.

For the resume part, my entire resume was data science oriented and he was not very informed about it, so I was asked to explain one of my projects assuming that I was explaining it to a kid who know nothing about technology. He also asked to explain the testing used while collaborating on huge projects on github. Even this interview ended with a 15-minute discussion on Atlassian and programming languages, etc.

Round 3: Values round

This round is meant to test how well your values align with those of the company.

This interview did not even feel like one and the interviewer was very sweet. He read through my resume and asked questions about situations that might have come (not technical) including setbacks, dealing with an irresponsible team member, critical decisions. He also presented certain hypothetical situations based on my answers. As usual, it ended with a 15-minute discussion on how to start one's career, things to keep in mind, etc.

Overall, the experience was great. They tested everything unlike many other companies that only test DSA. They also asked me what I knew and then built discussions on that. They were very friendly and believed more in discussions compared to right answers. The values round had no HR tactics (strengths, weaknesses, etc.). Although none of the interviewers could ask me technical details from my resume, they were pretty chill about it.

Important Topics and Subtopics to Remember

DSA (most important), OS, DBMS, OOP, System design (Gaurav sen's videos on youtube are a wonderful resource), Networks

Sources of Preparation

DSA: Interviewbit, leetcode

DBMS: Lecture slides

System design: Gaurav Sen's videos

OOP: Anywhere honestly. Just know the concepts involved

OS: Lecture slides

Networks: Classes

(I did not prepare for OS and Networks so I cannot mention any other resources)



Additional comments

Only mention those things on your resume that you can strongly talk about (be ready to explain your projects and answer questions related to the same). Although system design is not taught, they expect you to know it to some basic extent. Make sure you let them know what you do not know (that way some time is saved that can be utilized in other questions).

Atlassian

Bangalore

IT

Compensation Offered (CTC) : 5175688 PA

B.E. Computer Science

CGPA: 8.35

Recruitment Procedure

Round 1 - Coding Test:

There were three easy and logical questions for this test. The questions weren't common problems,

- 1) Given a set of coordinates and array of queries, where each query is a coordinate from the set provided, output the nearest coordinate in the set that lies shares the same X or Y axis with the query. (Note the question had to be solved optimally, as the number of queries was large)
- 2) There exists a "special array" which may be represented as $a(1), a(2), a(3), \dots, a(N)$. Given a lowerbound and upperbound value for the special array, along with an array of differences between consecutive elements $K = K(1), K(2), \dots, K(N-1)$, where $K(i) = a(i+1) - a(i)$, find the number of arrays that could be considered a candidate to be the unknown "special array"
- 3) Don't remember the third

Round 2 - Technical Interview

Good Start. Chill and Young Interviewers, they started by introducing themselves and their work, and then asked me about myself.

Discussed Projects and Internships but they told me to pick up from my resume what I want to talk about. Discussed my projects very extensively in terms of the design decisions that I took at every step. They picked up one of my projects and converted it into a scaling problem as to how I would scale the project to sustain 10,000 users.

- Moved into DSA Questions

- KMP Based : Find minimum number of rotations for a string to become itself - I wasn't able to exactly answer the question due to a few edge cases, but the interviewer accepted my line of thought.

<https://www.geeksforgeeks.org/minimum-rotations-required-to-get-the-same-string-set-2/>

- Hashing Based - Find itinerary from a given list of tickets - I answered the question correctly, but a more complex version of this question exists that required topological sort which I wasn't asked to move forward to.

<https://www.tutorialspoint.com/find-itinerary-from-a-given-list-of-tickets-in-cplusplus>

- Given an infinite size sorted array and an integer, what would be the most efficient technique to search for the integer in the array - Starting from the initial index take steps in powers of 2. Once you encounter an integer greater than the search query (assume on index 2^i), you perform a binary search with the bounds 2^i and 2^{i-1} .

What Interviewers Appreciated?

- I talked a lot about my projects, and what drove me to do them and even towards the end the interviewers highlighted that they liked my motivation towards my projects

Round 3 - Values/HR Round

Unlike other companies, the Values round for Atlassian holds a lot of weight in the decision if they want to hire you. They highlight their values a lot and identify themselves by it, so don't consider this interview any less important.

Polite and Senior Interviewer. With a similar start the interviewer asks you to pick up stuff from your resume and talk about it.

Questions were situation based like

- My key take aways from an experience that I had on my resume
- You've been in a team so tell about a situation when a team member didn't agree with you or the situation was hostile, and how did I handle it.
- What to do when a team's opinion and your opinion on the way forward may differ?
- So you're making a product but you shipped a bug in it, how will you still convince your users that the product is valuable?
- What are my ideologies about competition within a team?
- Talk about a situation where you brought an idea but it was turned down by your seniors?
- What are my ideologies as a leader of a team? How do you push your own ideas and what is the process you followed when a team member brought an idea to you or you put forward an idea to your team?
- How much open we were for feedback for a project on my resume and if we did any market research?

Basically this round is to judge what kind of person you are from the experiences you've had and the learnings you took from those experiences

Round 4 - Technical Interview 2

Intimidating and senior interviewer. He began similarly by discussing my projects but then utterly dissected each project or internship that I talked about and my decisions at every step. He analysed every line of the experiences that I wrote about in my Resume.

The interviewer then moved on to asking what my favorite subject in my degree was, I replied with OOP,

and he then moved on to reserve this subject to be asked in last. I was asked a mix bag of questions from OS, Networks, DBMS and OOP. Some questions were:

Questions in OS:

- Define Processes, Threading. Types of Inter process Communication. What to do when shared memory isn't available.

Questions in DBMS:

- Why DBMS. Why does Normalization exist and basically asked me to explain how redundancies can exist without normalization

- Compare between NoSQL and SQL. RDBMS sounds alright so why does NoSQL Databases exist?

Question in Networks:

- What happens when you put in a domain name in a browser? He wanted to hear about GET Calls in HTTP and DNS Calls

- What happens in a DNS Call? What's Iterative and Recursive Calls?

- What's the MAC and IP Address for? Where is MAC address used during transmission of data and where is IP address used?

Questions in OOP:

- What is OOP about?

- Started with comparisons between OOP Syntax inbetween C++ and Java. What is a virtual function in C++ and what is its counterpart in Java. What is an interface in Java and what is its counterpart in C++? Then into a lot of indepth technical questions based on the inheritance rules defined by Abstract Classes and Interfaces in Java, and similarly Virtual and Pure Virtual Functions in C++

As you may infer my third round was certainly the toughest and they test a candidate's limits in this round.

Important Topics and Subtopics to Remember

Questions on all CDCs and Resume were asked. Be thorough with your projects.

Sources of Preparation

Leetcode

Demux Academy

GFG

System Design Videos by Gaurav Sen

Additional comments

Atlassian has one of the most holistic and interactive interview processes. So definitely talk about your resume and start conversations about your projects. They may have some leeway on your technical/subject based questions if your projects and your values are highlighted.

Atlassian

Bangalore

IT

Compensation Offered (CTC) : 5175688 PA

B.E. Computer Science

CGPA: 9.48

Recruitment Procedure

Round 1: Technical Interview

Duration: 1 hr

This round covered questions from almost all subjects - DSA, OOP, OS, Networks and Networks. Some of the questions from the interview:

Operating Systems

One of the things that was different about the Atlassian process was that they did not directly ask a theoretical concept. For example, for the major part of the interview I was not asked something like "What is a race condition?" or "Explain conditions needed for deadlock".

Instead, the interviewer framed the problem in a vague manner, stating the need or desired outcome.

Through the discussion, I had to identify the corresponding concept.

For example:

Q. Your computer has an 8GB RAM. How will you divide space for programs?

This is quite vague but the goal was to arrive at the need for virtual memory and then explain how it is implemented. The interviewer guided the discussion by prompting about large programs.

There were similar, general questions on processes vs threads, address spaces, etc.

Object Oriented Programming:

Q. The interviewer asked me to explain inheritance and polymorphism, how they are important for OOP and how they relate to each other. He asked me to spend 2 minutes explaining this.

Ans. I explained the definitions, advantages and implementation of both and spoke in detail about overriding and dynamic dispatch.

Q. What is the size of instance of an empty class in C++?

Ans. 1. To ensure two different objects of this empty class are distinguishable.

There were 2-3 other questions as well.

DBMS and Networks were briefly touched upon. The interviewer asked a couple of basic questions about relational databases and how a server-client communicate over a network.

General questions:

Q. I was asked which language I preferred and why (since my projects were in Python but I had said I would code in C++ for the DSA portion).

Ans. I explained that I would prefer different languages for different things along with examples and reasoning. There wasn't a "right" answer here. The important thing was giving reasoning (eg: Python has many packages for high level tasks, making it preferable for certain types of projects. I had done a small exploratory project involving computational biology concepts. I talked about how Python had many packages like BioPython and rdkit).

1-2 more general questions were asked.

DSA

I was asked a simple question. I worked from the brute force solution to the optimal solution and then they asked me to make the code object oriented, rather than a simple function.

Q. Find the kth non-repeating number in an array

Example Input:

[1, 5, 5, 6, 8, 5, 8, 7, 6, 4]

k=2

Output: 7

Clarifying question: How many queries per array?

Ans. Assume Q queries per array

Solution:

Most naive solution: Loop over array for each element to check if it is non-repeating and return the kth number.

Time complexity: $O(QN^2)$

Slightly better solution: Optimised it by storing counts of elements in an unordered map. Traverse array again and check if count is 1 or not. Return kth number with count as 1.

Time complexity: $O(N) + O(Q*N) = O(Q*N)$

Space complexity: $O(N)$

Final solution: Push all the non-repeating numbers into a vector before handling queries i.e. store all non-repeating numbers in the array and then perform $O(1)$ lookup for all queries.

Time complexity: $O(N) + O(N) + O(Q*1) = O(N + Q)$

During implementation, initially there was just one function which took an array of elements and an array of queries.

For the final solution, I created a class where the array of elements, queries array and the list of non-repeating numbers were instance variables. I created 2 functions: one to populate the non-repeating numbers list and one to return the values corresponding to queries. I also defined the constructor.

I was also quizzed on why I chose unordered_map and its complexity.

Round 2: Values Round

Duration: 45 min

Usually, the values round happens after 2 technical interviews but I had my values round first. This round is like an HR round but it is not merely a formality. I was asked nearly 15-20 questions. They want to see your sincerity and whether you fit in with their company culture. I would recommend being honest and not embellishing anything.

Some of the questions I recall:

- Q. What has been the best team you've worked with and what made it great?
- Q. Discuss a team experience which wasn't as positive and why.
- Q. Describe a time where you pushed to get something done and you faced opposition that you overcame.
- Q. What is something you've done purely for yourself (not as part of an internship or course project)?
- Q. What is the most difficult feedback you've received?

There were many more questions. It is not really possible to prepare for this round because the questions were very varied and there was no "right" answer. I would recommend practicing talking about your personal experiences in an engaging yet concise manner.

Round 3: Technical Interview

Duration: 45-50 min

This round was about scaling a project I had done. In the first 5 minutes, I was asked to explain the project (chosen by the interviewer from my resume). Then they asked me to identify the challenges/constraints which I would have to handle if I wanted to scale up the project. We first improved the project algorithm-wise, then storage wise. For each change I suggested, some follow up questions were asked, testing my conceptual knowledge related to those changes. Then we focused on making the project work over a network so the challenges of reliability, load balancing etc were discussed.

Finally, I was asked a few more general questions. I had to discuss C++ vs Python again but this time the interviewer asked by to highlight the different features first rather than simply stating my preference and explaining that.

Important Topics and Subtopics to Remember

Data Structures and Algorithms, Operating Systems, Object Oriented Programming (know the principles well)

DBMS and Networks are less important but can be asked.

If you have listed multiple languages in your resume, they may ask you which you prefer and why. Know the important features of your preferred language



Sources of Preparation

- Geeksforgeeks for revision of theory topics and must-do questions for DSA
- InterviewBit for topic wise DSA practice

Additional comments

- Please be thorough with your resume. The interviewers will certainly ask about your projects and quiz you on them in detail.
- Prepare 1-2 questions you can ask the interviewer at the end of your interview (something that you are curious about, something about their experience, etc).
- The Values Round is really important in Atlassian. So be confident and authentic in that round. Don't just answer the question in one line. The interviewer wants to understand you. So present your thoughts in an engaging manner. Think of it as telling small stories about yourself.
- Don't worry if you don't immediately know the answer to certain questions. Listen well to the interviewer and grab all the hints they give. Make it a discussion.
- Remember to ask clarifying questions and scope out the problem (especially for DSA).
- Don't be silent for more than 10-20 seconds. Always let the interviewer in on your thoughts. Even if you are simply eliminating ideas, convey that as well.

Axxela Advisory Services LLP

Mumbai/Kolkata

Finance

Compensation Offered (CTC) : 1100000 PA

B.E. Electrical & Electronics Engineering

CGPA: 5.8

Recruitment Procedure

Round 1: Mental Maths Round: This round is just to test your speed in mental maths. This had around 10 sets of 5 Questions each which we had to do in 5 minutes. Don't think you can attempt all of them because you can not. It just comes down to choosing the easy ones and doing as many as possible to comfortably get shortlisted. P.S - I did around 42 Correct out of 50. For getting shortlisted a 25 was fine.

Round 2: Aptitude Round :This round had basic CAT GMAT type Aptitude Questions 25 of them to be solved in 25 mins. Just try keeping your speed intact and Getting 16-17 Correct should do the job for you.

Round 3: Trading Round : In this round you need to do good trades i.e buy low sell high as many as possible in 6 rounds of 3 mins each. You need to trade on estimated final value of a commodity whose part of values would be shown using a note or 6 cards. Basic knowledge of estimated variable in prob stats would do the job for you

Round 4 : Interview : This would nothing but a stress test combined with your ability to sensibly process things even when you are under stress. I was asked 4-5 Mathematics questions to be done very quickly. Like Angle b/w minute and hour hand at 12:17. Sum of squares of numbers from 1 to 20. How many turns do I need to pick a red ball successfully out of a bag. These questions were not difficult but time given was too less. He also asked me questions related to my memory like giving me a 20 digit number and after 5 minutes asked the reverse of it. Multiplication of numbers in it (It had a 0 in it : p) You should portray that u want to join the company Just because you love trading and you need to portray your risk taking capacity. A final tip would be don't lose your confidence thru the interview just smile and portray confidence and you'll easily sail through.

Important Topics and Subtopics to Remember

Mental Maths

Basics of Trading

Axxela's JD

Aptitude Questions CAT and GMAT level

Sources of Preparation

For Mental maths - rankyourbrain.com

For Aptitude Practice - PU Session and Pariksha. com



For Basics of Trading - Zerodha Varsity
For Puzzles - geeks for geeks
Just Google generic HR questions and prepare answers for them so that u don't fumble.

Additional comments

Just know about your profile and be prepared for any personal questions... Like if your CGPA is low why is it so low.. (Don't try to be diplomatic say whatever it is.) Don't try to be oversmart and Diplomatic as it would paint a negative picture for u and nothing else.... Practice mental maths as much as u can as it is a deal breaker initially... and Finally All the best if your reading this!! See you at Axxela

BNY Mellon

Pune/Chennai

IT

Compensation Offered (CTC) : 1734000 PA

B.E. Chemical

CGPA: 6.32

Recruitment Procedure

Round 1: Coding test

It was on Hackerrank and had 4 questions (1 easy, 2 Medium, 1 Hard) to be solved within 1.5 hrs. There were a different set of questions for each student.

1st Question: It was a DP question similar to find the minimum number of deletions to convert a string into palindrome.

2nd Question: The length of the longest substring such that each character in it appears at max K times.

3rd Question: This was a 2 pointer approach based question, the regular method would result in TLE.

4th Question: It was a graph question where you had to store all the paths in string format of the shortest length from the start node to the destination node in a cross-board of $m \times n$ dimension. The only two possible moves were down denoted by "V" and right denoted by "H". Now all these possible paths were to be sorted lexicographically and given an integer K the path(string) at Kth index was to be returned.

The key thing for this round was maintaining speed and not sticking onto a particular question for too long. A general tip for coding rounds is to practice few archived contests from hackerrank compete section in a time-bound manner so as to increase your problem-solving speed.

I was able to solve 3 questions completely and a few test cases of the 4th question. After this round, 6 people were shortlisted for the interviews.

Round 2: Technical Interview

This round was held on Hackerrank Codepair

In the beginning, the interviewer didn't ask me to code up the solutions and rather he just asked me the explanation and working. He started with asking the time complexities of different operations and algorithms. He was also interested in knowing the real-world applications of the same. Then he asked me

to explain Quicksort.

Then we later moved on to the coding portion, here he asked me 2 questions, one of which was to convert the binary number in a linked list to decimal the question was fairly simple but we just had to take care of the overflow that could occur.

Then he asked me about my project, it was based on the MERN stack, he asked me a few basic questions related to that.

In the end, he asked me if I had any questions for him.

Round 3: Technical Interview

It was also held on Hackerrank Codepair

The interviewer was a very senior person with 18+ years of experience, he was very friendly and helped whenever I got stuck.

This round didn't include any DSA questions rather it was based on the technical problems that a software engineer might face. He didn't expect me to give the exact answers rather he was more interested in knowing my thinking process and my approach to the unconventional problems.

The first question wasn't as such technical but he just wanted to know my approach to out of the box problems. The question was if on a banking website a hacker has access to the user's keyboard then how as a developer I can cater to this problem given that the user will be unaware of the presence of the hacker.

At first, I gave few lame answers but I kept on sharing my thought process behind those after getting further direction from him I told him that we can disable the keyboard and provide the user with a virtual keyboard and thus the credentials will be entered using mouse clicks. Although this might not have been the best answer but he was impressed with me being able to provide a feasible solution.

Then he asked me few questions related to encryption, hashing, cookies, and data security on websites and servers. I was able to answer most of them

Then he asked me about the programming languages and technologies I have worked with.

As I had told him that I knew both Java and C++ he asked me about the differences in both those languages, I told him about the regular stuff and that how Java is strictly Object-Oriented and C++ is not, then I told about the Garbage Collector of Java.

Then he asked me to suppose there is a memory leak in a huge application that has already been deployed with lakhs of users and we have to figure out that which particular file in the application is responsible then how would we do this in a short span of time such that the website isn't out of function for long.

Then he asked me few questions based on my resume.

Only 2 people were shortlisted after this round

Round 4: Technical + HR

This round started with a general introduction and about my interests.

He then asked me about my technical skills, along with this he asked me few questions about the current technologies that are currently in trend.

He asked me about any experiences from my college life that had helped me grow as an individual.

He then asked me as to how we will design amazon. He also asked me about the technologies that we will use and other related stuff. We didn't get into much detail here and he just wanted an overview. If you have knowledge of website development and basic knowledge of System Design then you can answer this comfortably, just make sure not to get into details if you do not know much.

He then asked why I wanted to join BNY Mellon and why I had an interest in Information Technology being from a Core branch. You must prepare these questions beforehand and also study a bit about the company and if there has been any recent development or major event related to them. These questions are very important for the HR round and shows the interviewer that this is not just another interview that you have come to but you are actually interested in the company.

Finally, he told me to ask any questions that I had. For this also I would suggest preparing a good follow-up so as to show your interest.

In the end, only 1 placement offer was made.

Important Topics and Subtopics to Remember

DSA and OOP are must.

If you are from a non CS background then you can skip Operating System and Computer Networks. I had not done DBMS due to lack of time but if possible then you can study this.

For System Design you can just watch Gaurav Sen's playlist on youtube and not dive any deeper.

Sources of Preparation

Leetcode, InterviewBit

Gaurav Sen's Playlist for System Design

Abdul Bari's C++ deep dive for OOP

If possible solve 2-3 mock contests in a time-bound manner from the Hackerrank archived contest



section so as to build your speed.

Maximillian Schawrzmuller's courses for WebD(This is optional, do this only when you are done with other portion). You can download them for free from "freecoursesite.com"

Additional comments

- 1) Write only those things on your resume that you are comfortable with.
- 2) It is not necessary to have a lot of fancy projects on your resume, having decent knowledge of DSA and the mentioned important topics first is a must, and move to project only when you are done with this. (Note: This might vary from company to company as few might lay more emphasis on the project part)



CodeNation

Bengaluru

IT

Compensation Offered (CTC) : 33.5 PA

B.E. Computer Science

CGPA: 7.17

Recruitment Procedure

Round-1(R0) - Technical Round:

This was a telephonic round that lasted for about 20-25 mins. The interviewer asked me to explain any one of my projects. Once I was done explaining, he asked a couple of questions regarding the project. The shortlist for this round was announced within 5-10 mins.

Round-2(R1) - Technical Round:

This round was based on DSA. It lasted for about 1hr 15mins. I was asked a couple of questions. The first question was based on Dynamic Programming. The second question, was a tricky one, based on binary search. The interviewer suggested to lookup 'Rolling Hash' online after the interview, which would have been very helpful if I had known about it from before.

The shortlist for this round was also announced in less than 10 mins.

Round-3(R2) - Technical Round:

This round was again based on projects but in much more depth. It lasted for slightly more than 1hr. The interviewer asked me to explain one of my projects, and specifically mentioned to talk about one that I have not explained in the 1st round(R0). I explained the project I was working on, at my PS. This was done in about 30 mins, so he asked me to explain another project, which took another 30-35 mins.

The shortlist for this round was announced in about 5 hrs.

Round-4(R3) - Technical/HR Round:

This round was with the CEO of the company, where he asked me some basic questions, like, to describe some work that I had done and was proud of, why do I want to join Codenation, etc.

After about 30 mins I got a call from PU, that I have been selected for the role of SDE at Codenation.

PS - All the interviewers asked if I had any questions for them at the end. According to me this is a crucial part in an interview and one should try asking genuine and good questions to the interviewers.

Important Topics and Subtopics to Remember

- If you are mentioning a project in your resume be ready to be asked about it in very depth. So, don't write anything on your resume if you are not very sure about it.



- Codenation mainly focuses on DSA. In the coding contest we were even asked a 4D-DP question. So be prepared for some really good questions based on DP.

Sources of Preparation

InterviewBit is a must.

For specific topics go for GeeksForGeeks.

Once done with InterviewBit practice as much as you can on LeetCode.

Additional comments

Even though I was asked questions only on DSA and the projects that I had done. But, it has been observed previously that the 3rd round(R2) is very abstract and one may be asked questions on System Design, OOP, etc.

MedPlus/CustomFurnish

Hyderabad

Electronics

Compensation Offered (CTC) : 900000 PA

B.E. Electronics & Communication Engineering

CGPA: 7.82

Recruitment Procedure

Round 0: We filled a form with necessary details and uploaded resume. There's resume shortlisting done here.

Round 1: Technical interview. The interviewer asked about basic electronics questions like what are transistors, gates, diodes, ICs and asked to draw specified gate with the use of diodes without using transistors. It's better if you can remember the IC numbers of basic gates. He also asked why grades went down in btech.

Round 2: Technical + HR. Interviewer continued from the last discussed topics. Then he went through my resume. He asked what all microcontrollers that I used. Then he asked me to explain what is a microcontroller assuming him as a person who doesn't know anything about it. At the end of interview he asked me to tell why he has to hire you, what different are you from others.

PS: I may have missed out few things which I don't exactly remember.

Important Topics and Subtopics to Remember

Digital Design, MuE, ADVD, ESD

Sources of Preparation

Respective textbooks and slides from lecturer

Additional comments

projects in my resume are from ESD which helped me to get the job

MedPlus/CustomFurnish

Hyderabad

Electronics

Compensation Offered (CTC) : 900000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.8

Recruitment Procedure

Round 1 : Technical - Basic Electronics concepts related to Embedded Systems (Hardware + Software)

Round 2 : Technical + HR - Again similar to first round. However, this time it was more extensive and a bit in-depth.

Important Topics and Subtopics to Remember

Embedded Systems Design, Micro-processors and Interfacing, Basic concepts of Analog + Digital Electronics

Sources of Preparation

Notes, Internet (Just prepare to understand the basic concepts in core electronics, that's it.)

Additional comments

The interviewer was very friendly. The interviews felt less like interviews and more like brainstorming sessions - So relax.

Broadridge

Gurugram

IT

Compensation Offered (CTC) : 9.5 LPA

B.E. Electronics & Instrumentation Engineering, M.Sc.Biological Sciences

CGPA: 6.92

Recruitment Procedure

Round 0 : Coding and Aptitude Test

2 hr test. In the starting 60mins there were 60 questions. 20 questions each of Aptitude, English and Quantitative Reasoning. In the next 60 mins there were 2 coding problems.

Round 1: Coding Round

Half an hour Interview on Resume and 1 DSA question(convert string to integer) and basic OOP questions.

Round 2: Coding + Behavioral

Interviewer was very senior person(20+ years working experience). It was a 20 mins interview. Basic programming question was asked and the remaining part was mostly behavioral.

Round 3: HR Interview

10 mins HR interview on phone call.

Important Topics and Subtopics to Remember

Basic programming and OOP concepts

Sources of Preparation

InterviewBit, Geeks for Geeks, Codechef, Javatpoint(For OOP)

Broadridge

IT

Gurugram

Compensation Offered (CTC) : 9.5 PA

B.E. Electronics & Communication Engineering

CGPA: 6.2

Recruitment Procedure

Round 0: Online Test

The duration was 2 hours, and was conducted on Mettl. The test had 6 sections. Out of these, three sections were aptitude-based while the other three had questions pertaining to CS fundamentals, DSA and Coding.

Round 1: Technical Interview

This one had questions pertaining to wide range of topics. The round begun with the interviewer asking me to introduce myself. Then, I was asked two DSA questions. I had to explain the logic behind both and then write the pseudo code for the same.

Question 1: <https://www.geeksforgeeks.org/detect-and-remove-loop-in-a-linked-list>

Question 2: <https://www.geeksforgeeks.org/find-next-greater-number-set-digits>

Then, I was asked in-depth questions about the implementation of AVL, Red/Black Trees and a few other data structures. Afterwards, the interview asked me a few questions pertaining to Object Oriented Design and SQL. Finally, to conclude the round, she gave me two puzzles to solve, which were quite trivial, to be honest.

Round 2: AVP round

This was taken by the Assistant Vice President of the organization. I was asked questions about my CV, projects and internship. The round was mostly non-technical in nature and was more of a behavior-screening exercise. In the end, however, he did ask me some basic questions related to OOP and pointers in C++.

Round 3: HR round

This was the easiest of them all. I was asked to introduce myself. Later, the interviewer asked me about my extra-curriculars at BITS. Finally, she asked me to give any example of a situation in which I faced a

big problem and had to work my way out of.

Important Topics and Subtopics to Remember

Object Oriented Programming, DSA and CS fundamentals are a must.

Sources of Preparation

Aptitude questions were not very difficult and in my opinion, the aptitude training session organized by the PU before the placement cycle covered everything.

DSA: InterviewBit and Leetcode were the websites I frequented for practice.

OOP: On campus coursework should suffice. If you haven't taken the course on campus, arrange the slides and they should be enough.

CS fundamentals: Mostly GeeksForGeeks and slides from the courses offered on campus.

Additional comments

Please make sure that you don't mention anything on your Résumé that you are not well-versed with. Be prepared to face in-depth questions regarding anything and everything you mention in your Résumé.



Cisco Systems India Pvt. Ltd.

Bengaluru

IT

Compensation Offered (CTC) : 2604766 PA

B.E. Computer Science

CGPA: 9.01

Recruitment Procedure

Round 1:Online Test: 2 coding questions of medium level with languages allowed being only C/Python/Java (No C++) and MCQs from Networks ,Operating Systems ,Math

Round 2:Technical Interview:1 Coding Question ,Basics of Networks (TCP-UDP),Basics of Operating Systems (Be thorough with Operating Systems)

Round 3:Managerial Interview:This interview had a very senior interviewer who basically wanted to see if you were a good fit for the company or not,he asked about previous projects and about my likes and dislikes in general

Round 4:Technical Interview: Operating Systems(Processes,Threads,Virtual Memory),Networks(Basics),Some questions from OOPS(polymorphism) .Operating Systems being the most important

Round 5: HR round: The interviewer just explained about the company and tried to know about me

Important Topics and Subtopics to Remember

Operating Systems (Process and Threads)

Computer Networks (TCP-UDP)

Data Structures and Algorithms (for online round)

Basics of OOP

Sources of Preparation

Interviewbit,GeeksforGeeks for DSA

GeeksforGeeks for OOP

Class notes for Operating Systems

Cirel Systems Pvt Ltd

Bengaluru

Electronics

Compensation Offered (CTC) : 1300000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.99

Recruitment Procedure

Round 1: Written Test

The first round was a written test which was subjective in nature. There were 10 questions and it lasted for an hour. As the company is focused in analog design, the questions were mainly focused on analog circuits, while there was just 1 question on digital circuits. The questions were on the basics of Op Amps, RC/RL/RLC Circuits, MOSFETs, switched capacitor circuits etc. and a combination of these. There were also explicit questions on control theory topics such as bode plots, poles/zeros etc. As the exam was subjective in nature, you had to show the steps. They evaluated not only based on the final answer, but also the approach.

Round 2: Technical Interview

The interview started by them revisiting the questions I had done wrong in the test. Then they asked a series of questions on analog circuits. The first question was based on RC circuit with 2 resistors and a clock input waveform. I was asked to draw the output wave form, find poles and zeroes and draw the bode phase plot. Then, I was given another RC circuit with multiple capacitors and resistances and was asked to estimate the location of the dominant pole. They asked me 3-4 questions on MOSFET basics such as finding the output resistance, finding poles/zeros, inverter operation (basic) etc. Some questions were asked on the basic op amp configurations like integrator. They tried to involve control systems concepts in almost all questions. After this, they asked me to describe one of my projects in the end. The interviewers were quite friendly and helpful. I did not get all the questions right on the first attempt but got to the correct answer eventually, with or without the help of hints. Rather than just the final answer, the interviewers are more interested in your approach and how much intuition you can employ while solving a problem. Don't write mathematical equations (especially for RC Circuits), unless absolutely necessary. Read about the company beforehand so that you have a better idea of what to expect in the interview. Be vocal in the interview and if you have any doubts, ask them, don't make assumptions in your own mind. State any assumptions you make explicitly and if asked to draw waveforms, make it as descriptive as possible by writing extreme values, slopes, equations etc. Describe your working to your interviewer verbally so that they have an idea of what you're thinking and it also helps avoid the awkward silence. This is especially important in online interviews as the interviewer has absolutely no idea of what you're writing.



There was no HR round.

Important Topics and Subtopics to Remember

For analog profiles -

ES: Basic Circuit Analysis Concepts like Thevenin/Norton Theorem, Superposition etc (Don't ignore), Basics of Capacitors/Inductors, Charge/flux sharing between capacitors/inductors, Finding equivalent resistance, Exploiting symmetry in a circuit to find resistance (Cube of resistors problem), RC & RL Circuits - Both Intuitive and Mathematical Approach for step, pulse, impulse, clock and ramp inputs, RLC Circuits, Lossless LC Circuit, Diode Models, Diode applications like clipper, clamper etc., Diodes in LC Circuit, Zener Diode as a Voltage Regulator

MuE: Basic Understanding of how a PN Junction, BJT and Mosfet works (ED), Biasing, Small signal model of MOSFET, Second Order Effects, Finding input/output impedance of amplifier circuits, Common Source, Common Gate, Source Follower Configurations, Cascode Amplifier, Current Sources, Differential Amplifier, Capacitances on MOSFET, Frequency Response of All mentioned configurations, Miller's Theorem, Finding poles/zeros of MOSFET circuits by intuition, Feedback, Effect of feedback on output/input impedance, gain, bandwidth etc., Gain/Phase Margin and Stability, Study all these topics for BJT as well but it is not as important as MOSFETs

Analog: Basics of Ideal Op Amps, Supply voltages and efficiency, Op Amp non-idealities and how to correct them, Basic configurations like inverting amplifier, non inverting amplifier, buffer, summing amplifier, integrator, differentiator, instrumentation amplifier etc., Active rectifiers, clippers, clampers, peak detectors etc, Comparators and their applications, Schmitt Triggers, Barkhausen Criteria, Oscillators and Multivibrators, Active Sallen Key Filters, Multiple Feedback Filters, Switched Capacitor circuits, ADCs/DACs and their comparison, PLL and VCO, Buck/Boost regulator

ADVD: Various configurations of Op Amps such as telescopic, folded Cascode, two stage, gain boosting etc. , Bandgap Reference Circuits(if time permits)

ConSys: Negative Feedback and it's effects, Poles and Zeroes, Bode Plots, Stability Criterion, Compensators, Laplace Transform and it's properties, Properties of second order systems

SAS: Conceptual understanding of what Fourier Series and Fourier Transform mean, Sampling

For digital basics of DD, ADVD (especially Inverters and Static Timing Analysis), MuP, Comparch (if done), SAS is enough. Should be thorough with Verilog and C programming.

Sources of Preparation

Basic ES and RLC Circuits:

1. Hayt and Kemmerly - Engineering Circuit Analysis

2. Circuits and Electronics Courses 1-3 by MIT on edX
3. Chembiyan Sir's Video Series (Best for intuitive understanding of RC Circuits , however do not watch these until you have done consys and SAS)
<https://www.youtube.com/playlist?list=PL6qRG5-NfbLvagdQOwShX9FMrzb5hSvrq>

MuE:

1. Razavi - Fundamentals of Microelectronics (Red Book)
2. Grey, Meyer - Analysis and Design of Analog Integrated Circuits
3. Prof. Razavi Lecture Series: Electronics 1 and 2
https://www.youtube.com/playlist?list=PLyYrSVqmyVPzvVIPW-TTzHhNWg1J_0LU
4. Chembiyan Sir's Video Series:
<https://www.youtube.com/playlist?list=PL6qRG5-NfbLvCFCEdWlWrloeOrQxP9ZE>

Analog:

1. Sergio Franco - Design with Operational Amplifiers and Analog Integrated Circuits (This book may go into too much detail so choose what to read)
2. Op Amp Basic Circuits -
https://www.youtube.com/playlist?list=PLwjK_ikyK4LLDBB1E9MFbxGCEnmMMOAXOH
3. Oscillators and Multivibrators -
https://www.youtube.com/playlist?list=PLwjK_ikyK4LLCVdgBR30pSFVj-17TI_8ou
4. ADC/DAC - https://www.youtube.com/playlist?list=PLwjK_ikyK4LLCnW-df-_53d-6yYrGb9zZc
5. Op Amp Fundamentals (Videos 98-110) -
<https://www.youtube.com/playlist?list=PLa4KQhDIGd7QCTX3gTz0LyoL93jVjtaMe>

ADVD:

1. <https://www.youtube.com/channel/UCkxt7P5Pbhk1m2zArzOQDCQ/videos>
2. <https://nptel.ac.in/courses/117/106/117106030/>
3. Razavi - Design of Analog CMOS Integrated Circuits
4. Bandgap Reference Circuits -
https://www.youtube.com/playlist?list=PLQms29D1RqeKGBEW8La2a7YuN5_4pSV4k

ConSys:

1. Brian Douglas Videos on youtube
2. Try to find course slides of Manjrekar/ Vivek Chandran Sir, they are enough for placements

SAS:

1. Neso Academy - <https://www.youtube.com/playlist?list=PLBlnK6fEyqRhG6s3jYIU48CqsT5cyiDT0>
2. BP Lathi Textbook

Static Timing Analysis:

1. <https://vlsiuniverse.blogspot.com/search/label/Static%20Timing%20Analysis%20Interview%20Questions>
2. Sequential Circuits Chapter from Neil Weste Harris





3. <http://www.vlsi-expert.com/2011/03/static-timing-analysis-sta-basic-timing.html>

Tool for Practicing Filter Circuits: <http://sim.okawa-denshi.jp/en/>

ED (if required): https://www.youtube.com/playlist?list=PLQms29D1RqeKGBEW8La2a7YuN5_4pSV4k

DD and CompArch:

1. Morris Mano

2. https://www.youtube.com/playlist?list=PL5Q2soXY2Zi_FRrIoMa2fUYWPGiZUBQo2

3. <https://www.youtube.com/playlist?list=PLE9A168B753AAE03A>

Aptitude: <http://www.indiabix.com/aptitude/questions-and-answers/>

Puzzles: <https://www.geeksforgeeks.org/puzzles/>

Additional comments

Don't ignore aptitude. Pay attention in the aptitude workshop conducted by PU as that is enough to get through the aptitude section of most companies.

Try to have an intuitive understanding of whatever you're studying. It's not like our regular exams where we write mathematical formulae and the attention is only on the final answer.

Ceremorphic

Hyderabad

Electronics

Compensation Offered (CTC) : 1600000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.82

Recruitment Procedure

Round 1 : Resume Shortlisting

We were asked to give a write-up of about 150 words about yourself and the projects you have worked on. Suggestion : Keep the write-up crisp and focus only on the important points. Use bullets wherever possible and underline the keywords. Try not to be redundant.

Round 2 : Technical Interview 1

The interviewer was the Director-VLSI at Ceremorphic, but she was very friendly and started off with a light conversation about myself. Then she asked me about the courses I did from Coursera, and what were the learning outcomes from the course and then some questions related to that. Then she moved on to the projects where in she first asked me to brief my project and then started asking questions related to the topics in depth. The main topics for discussion were Static Timing Analysis and Digital VLSI.

One more thing that happened in my interview is that she asked me to present my screen to show the results of a particular project. She then asked me about why the results were the way they were. She asked me in depth questions about what would happen if we did this change and many such related questions. My point here is do not write projects you haven't worked on. Expect in depth questions about the domain your project is in.

Towards the end she asked me a simple Puzzle about a cake and how can I cut it into 8 equal pieces in minimum number of cuts.

She asked me if I have any questions for her. We discussed those for a while and then the interview ended.

The interview lasted for 1 hour.

Round 3 : Technical Interview 2

The interviewer asked me to introduce myself and then started with questions related to Cache. He asked me about the different Caches like Direct Mapped, Set-Associative and Fully Associative Cache. He had asked me to derive a general equation of Hit rate for each of the caches. I was not able to reach up to the final answer but was able to explain how to go about it. Point being, focus more on approach than focusing on the Final Answer. Think out loud so that the interviewer can judge you based on your thinking. He then asked me questions related to Pipe-lining and how to Flush the pipeline and how to process a

NOP. He then went back to Caches and asked me about the replacement policies in a Set-Associative Cache, Advantages and Disadvantages for each of them and which one gives the best performance. He asked me questions related to Verilog. The main focus was on blocking and non-blocking assignment and inter and intra assignment delays. He gave me different combinations of Verilog statements and told me to predict the values of variables at particular time instances. One thing I would like to mention is, take some time from the interviewer by saying, "Give me 2 minutes to think about the Question". In this time, frame the points you want to speak or think about the approach you feel is correct. Then start explaining those things to the interviewer. In this way, you can be more clear and to the point and there won't be any fumbling or breaks while answering. He had also asked me 2 puzzles in between the Technical Questions. He then asked me if I had any questions for him and then the interview ended. The interview lasted for 1 hour.

Round 4 : HR Interview

This was more of an interaction rather than an Interview as such. She asked me about myself, my hobbies and my interests. She asked me if I had any questions and we talked about it for a while. This interview lasted for about 15 minutes.

Some Tips :

Though I have written some tips already, there are a few more I would like to mention.

- It's obvious to be nervous before a job interview but once it starts, the interviewers take that smoothly. So don't keep a pre-occupied burden in your head because believe it or not, it does affect your interview.
- Keep a smile on your face while having normal conversations. It helps you feel confident and connecting with the interviewer.
- Ask Questions when they tell you to. Don't just leave without asking any.

Important Topics and Subtopics to Remember

Static Timing Analysis is a must for Digital profiles.

Basic Digital Design Concepts.

Verilog Codes for different Combinational and Sequential Circuits.

Computer Architecture.

Sources of Preparation

Go through the material PU gives for preparation.

Once you do that, go to the internet and find questions to practice according to your weak area.

GATE questions are also a good source of preparation for clearing the basics and are of a great help for written rounds.



Additional comments

Apart from Technical, they can ask you puzzles for checking your thinking and approach. You can practice Puzzles from Geeks For Geeks which has an entire section of Puzzles. In fact the solutions to the puzzles that they asked me are available on Geeks for Geeks.

Cadence

Pune

Electronics

Compensation Offered (CTC) : 1300000 PA

B.E. Electronics & Communication Engineering

CGPA: 8.96

Recruitment Procedure

Round 1 : Resume Shortlisting. Mention projects in your resume pertaining to the job description and do not write anything in your resume which you are not confident about.

Round 2 : Technical interview (about 45 minutes) :

All the questions were design questions to test the knowledge on digital design and computer architecture.

Question 1 : He asked me basic questions on storage devices, like how to construct storage devices using only logic gates and switches, what is the internal structure of a D flip flop and he asked me to show by drawing it. You have to remember the internal structure of a D flip flop and a D latch.

Question 2 : He asked me how can I generate a clock using only logic gates and how to determine its frequency.

Question 3 : He asked me to design $f/2$ counter and frequency doubler.

Question 4 : A circuit was given consisting of flip flops and combinational logic and I had to determine the setup time and hold time constraints and then he kept on changing the circuit and I had to tell what all changes will be induced on the setup time, hold time and maximum frequency.

Round 3 : Technical interview (about 1 hour) :

Again, all the questions were design questions.

Question 1 : A circuit was given consisting of flip flops and logic gates and I had to tell him the generalized form of setup time and hold time constraint equation and I was free to make any kind of assumptions. In this question also, he kept on changing the circuit and for different situations, I had to tell him the setup and hold time equations.

Question 2 : He asked me a question on FIFO to determine the FIFO depth and then I had to tell him what is the full and empty condition of this FIFO. FIFO might not be taught in any course but it is an important topic.

Question 3 : He told me to design a circuit that adds all the bits of an 8-bit number using full adders and half adders.

This was the most difficult round as the interviewer kept on changing designs whenever I gave a correct answer but he also gave me hints whenever I was stuck at any point of time.

Round 4 : Technical interview (about 45 minutes) : Most of the questions were based on my resume and

some design questions were asked. You should know in detail about every topic written on your resume

Question 1 : He asked me to explain about my PS1 project and about one more project which I did as a DOP and he kept on asking multiple questions revolving around the projects which I had explained.

Question 2 : He asked me to design a clock divider circuit.

Question 3 : He asked me a question on how to synchronize the clocks from one port to another if some type of communication is taking place between two ports.

Question 4 : He asked me to explain about MAC units and division units in a processor as I had mentioned that in one of my projects and told me to give a method for which division operation is synthesizable.

Question 5 : He asked me why I applied for Cadence.

Round 5 : HR interview (about 30 minutes) :

Question 1 : She first gave an introduction about herself and Cadence and then asked me to introduce myself and asked about my family background.

Question 2 : She asked me to explain what has the lockdown taught me and how it has benefitted me.

Question 3 : She asked me to explain any kind of work which I did which I can call my own original work.

Question 4 : I was a teaching assistant in a course, she asked me to explain what I learned from the TAsip.

All the HR questions can be answered on the basis of our own experience and the answer will vary from person to person.

NOTE: All the interviews were done on CISCO Webex and for some of the questions, I had to show my rough work through a webcam. Most of the design questions would not be given in any book but on practicing enough questions from various materials, one can answer most of the questions.

Important Topics and Subtopics to Remember

Computer architecture and digital design are the most important topics. Apart from that static timing analysis is also important and you should have done at least one or two projects in Verilog and should know all the concepts of Verilog.

Sources of Preparation

Morris Mano can be used for digital design. For computer architecture, the slides and video lectures are enough. For static timing analysis and verilog coding, numerous materials are available on internet. The following website helped me for preparation <https://www.nandland.com/articles/>

Additional comments

Whenever I was stuck at any point in time in the interviews, the interviewer told me to show my work on the screen and he gave me hints and also told me if I was going in the correct direction or not. If you do not reach the final answer it's fine, all the interviewers wanted to know my approach in reaching the final answers. However basic concepts of digital design, computer architecture should be know

Byju's

Bangalore

Education

Compensation Offered (CTC) : 800000 PA

B.E. Chemical

CGPA: 6.74

Recruitment Procedure

Round 1: Aptitude

- 5 sections: 1 aptitude (compulsory) + 4 (P, C, M, B; had to solve any 2 of the 4)
- I had chosen chemistry and math
- 11th-12th type questions, quite similar to the ones in entrance exams
- aptitude questions were simple but very time-consuming; similar to math concepts learnt until 10th (HCF-LCM, congruent and similar triangles, and other simple geometry type questions)
- proctored + time limit
- overall wasn't very difficult but had to be time-conscious
- calculators and rough sheets were allowed

Round 2: Assignment

- "written interview" type
- was asked to choose the primary subject for interview out of P, C, M, B at the beginning
- 4 sections: find errors, visualization, story-telling, simplify
- in "find errors", I had to find various types of errors from a given passage/write-up (mostly factual but spellings too in some places)
- in "visualization" I had to make an infographic of a concept, or an event, or a company's timeline, or basically anything that can be portrayed in the form of graphics. I had made a timeline of the Coca-cola company
- in the "story-telling" section they had asked to explain a movie's ending or a character sketch in your own way (didn't do that)
- "simplify" had questions from each of the subjects (P, C, M, B), had to pick one. I had picked the chemistry question; which had asked me to explain a mole concept problem to a kid

Round 3: Personal Interview

- the interviewers at first asked some things about my resume
- they seemed quite impressed with the certifications (although not very relevant but just because they had big names like Google and Facebook) and my skillset too
- then they asked why I wanted a career in education and why BYJU'S in that case
- then they asked me to teach a topic from the subject that I had chosen (chemistry, in my case), assuming I would be teaching it to a middle school kid and for the first time

-
- it wasn't really a bombardment of questions, it was rather a discussion and more or less a concept-check
 - they were very very polite in nature
 - at the end the interviewers gave some feedback; they told me that I am indeed a good teacher but probably because it was a long time since I had touched school books I might have been confused about some concepts, so that needed work
-

Important Topics and Subtopics to Remember

1. BE SURE IF YOU'RE INTERESTED IN TEACHING. They don't really see if you are an expert in the field, they mostly check if you can explain things well. In fact they even ask why you want to pursue a career in education.
 2. Whatever subject you choose (out of P, C, M, B), make sure you're well-versed with that. You don't have to keep every single concept in mind, just the basic ones will do but be good at them.
 3. This is a creative job profile, hence soft skills are as important as technical skills, if not more. In the assignment round you would be asked to visualize a concept or an incident into an infographic, so you have to be less technical and more artistic there. Same goes for the storytelling part.
-

Sources of Preparation

NCERT textbooks of 9th-10th and 11th-12th for the subject you choose, aptitude topics from the PU training

Additional comments

1. Be well-dressed and well-groomed
2. Be polite when talking
3. Be confident when speaking (AVOID tones like umm, uhh as much as possible; these leave an impression too)
4. If you don't know the answer, tell them. If they correct you, say thanks and happily accept it
5. Don't feel the necessity to ask something when they say "do you have any questions for us". If you genuinely have a question, ask. If not, leave it.

Byju's

Bangalore

Education (Content Development)

Compensation Offered (CTC) : 800000 PA

B.E. Mechanical

CGPA: 5.79

Recruitment Procedure

Round 1: Written Test

It had 5 sections- Aptitude and Language (compulsory) and one section each for Physics, Chemistry, Maths and Bio.

We were supposed to choose two sections from the PCMB section.

Aptitude and Language sections had basic reasoning questions (like finding relations, solving from patterns etc) and comprehension questions (apart from synonyms and odd one out questions, this involved a grammatically and factually incorrect paragraph which we needed to correct and submit).

The sections for PCMB have basic subject questions (mostly class 12th level, however, physics and maths sections do have some questions which are JEE level).

Round 2: Subjective assignment

For this, we got about three hours.

There is a basic comprehension question just like in the first section (the passage is factually and grammatically incorrect).

There is another question for story writing skills (We needed to write the ending of a movie in our own words)

We need to make a poster (you can use some software or draw it by hand), explaining a concept of our choice, to a class 5 student. (Try choosing a concept, you are comfortable talking about in the interview, it can be from any field, I drew a graphic about websites. We had access to internet for this, so it was more about how we explain it than the actual content itself). We also need to choose one of the PCMB subjects, select a topic from that subject (e.g. I selected cell division from Biology, choosing this carefully is important because in the interview round a person from this field will interview you. I got a biology faculty. They do ask you in the beginning if you are comfortable with that subject, they are also willing to change the interviewer if you ask, but that would involve rescheduling the interview time) and write a paragraph explaining that concept (they prefer if you add diagrams).

Round 3: Interview

It starts with a basic intro (like they ask why do you want to join etc.). Then they'll choose 2-3 topics from their subject and ask you to explain them. (I was asked to explain meiosis (which I had drawn in the second round), light and dark reactions (related to Calvin cycle), cellular respiration, ATP and glycogen).

Overall, they want to test that how well you can explain a concept to someone.



Important Topics and Subtopics to Remember

Preparing for aptitude questions will be helpful in the first round, but in general, the topics depend upon the subject of your choice, just make sure to get into the details while preparing for the interview round.

Sources of Preparation

I had taken two open electives from the Bio department in the previous semester, so I was familiar with the basic concepts. Otherwise, just brushing up on topics from class 12 will be sufficient for the written round. For the interview round, select a subject which you want to appear for and revise the course content for that subject taught in first year.





Byju's

Education

Bangalore

Compensation Offered (CTC) : 800000 PA

B.E. Computer Science

CGPA: 5.34

Recruitment Procedure

Round 1: Questions on aptitude, math, physics and chemistry. Could attempt any 3 subjects out of 4.

Round 2: Q1. Correct the paragraph for punctuation, grammar and context.

Q2. Write and explain all the steps clearly in a math problem.

Q3. Write and explain any complex topic of your choice pictorially.

Round 3: Interview: Detailed discussion about the assessment in the previous round. Asked questions in math like integration as I selected math as my subject in round 2. In my case, why my cgpa was low.

Important Topics and Subtopics to Remember

Go through basic concepts in math, physics and chemistry on intermediate level.

Sources of Preparation

Intermediate textbooks



Byju's

Non Core

Bangalore

Compensation Offered (CTC) : 800000 PA

B.E. Electronics & Communication Engineering

CGPA: 5.46

Recruitment Procedure

Round 1: Online test- We had to solve an online quiz in two of our preferred subjects, out of physics, chemistry, math and biology, as well as an aptitude test. The quiz covered fairly in depth knowledge of the subjects.

Round 2: Assessment- We had to pick one subject out of the two subjects we had picked, and solve four questions related to teaching concepts such as proofreading, designing an infograph, etc. The questions were mainly to test our English and subject specific knowledge.

Round 3: Interview- The interviewer asked me questions related my assessment in the second, and asked very in-depth questions testing my knowledge in my chosen subject.

Important Topics and Subtopics to Remember

In depth 12th standard level subject knowledge, general knowledge

Sources of Preparation

-

Dalberg

Mumbai

Consulting

Compensation Offered (CTC) : 1233080

PA

B.E. Computer Science, M.Sc.Economics

CGPA: 9.29

Recruitment Procedure

Round 1: Resume shortlisting

Resumes are shortlisted based on the following criteria: Industry Experience, Research Experience, Entrepreneurial Experience, Leadership Skills, Extracurriculars , Academics.

The more of these "peaks" your resume reflects, the better are your chances

Round 2: Speed Test

This is a lightning round and mostly tests your speed and ability to think under pressure. In 12 minutes, they ask for a quick introduction, a leadership or entrepreneurial experience you want to talk about (you only get one minute per question so make sure you prepare and time yourself in advance). Then there is a quantitative section where you are asked a simple linear equation and basic math question. Make sure you don't make silly mistakes due to the time pressure. Finally, there is a verbal section where you are asked to summarize a passage in a single sentence. Try to just skim through it and construct the sentence as fast as possible.

Round 3 (Case Interviews) : I had four case interview rounds. Each was an hour long and consisted of two parts - case solving and fit questions. The first round round was taken by a senior consultant, second by a project manager, and the final two were taken by partners. As the rounds progress, more time is given to the fit questions.

The cases: All the cases given to me were case that the interviewers had worked on (plus some other general business cases). The only catch is that the cases are pretty vague and there will be a lot of things you have to estimate. For example, I was asked to estimate the market size for a malaria drug. I was given no information and had to come up with a number based on which countries Malaria was prevalent in, the approximate populations of those countries, the % of the population that was below 5 years of age (Malaria is much more serious among young children) etc.

Try to find some problems like this and try to go about it in the most structured way possible (you could even look through their website and think about how you would approach some of the projects that they are involved in). Also make sure you look up the main things your interviewer has worked on and do some research on that.

I was also asked a case related to the Indian education system (one of the subquestions was to estimate the number of children who go to Anganwadis and the average cost of running a primary school)

The fit questions were pretty straight forward - Why Dalberg, why consulting, strengths and weaknesses, introduce yourself etc. It is very important to prepare for these in advance.

PS: Also think of some interesting and targeted questions you can ask your interviewer. Don't ask them something that can be found online. (They almost always ask "is there anything you would like to ask me").

PPS: Be calm in the interview, take a moment if you need it to plan out your thoughts. Talk to the interviewer, explain every step and decision you take. Good luck!

Important Topics and Subtopics to Remember

For Dalberg specifically, the cases are usually related to the development sector and have a lot of guesstimate type sub questions. Make sure you roughly know about the important global issues and know some numbers like population of big Indian cities, % of rural and urban population, income strata and distribution, populations of some countries etc.

Sources of Preparation

I only had a week to prepare and I had never solved a case before in my life so I can swear by "Case Interviews Cracked" by Sankalp Kelshikar and Saransh Garg. This book is super helpful. Make sure you go through it thoroughly. I read every single solution and tried to solve a few on my own before looking at their solution. Pay close attention to how they structure their problems and solve guesstimates. Watching cases being solved on youtube are also helpful to understand the flow of case interviews.

Additional comments

Go through the Dalberg website thoroughly and try to find out more about the projects that they have been an important part of. There are some videos on Youtube related to Dalberg recruiting so make sure to go through that as well.

Also, have well structured and thought out answers for questions such as "tell me about yourself", "why Dalberg", "why consulting?", "what are your strengths and weaknesses" etc.

Deutsche Bank

Pune / Bangalore

IT

Compensation Offered (CTC) : 1963360 PA

B.E. Computer Science

CGPA: 8.03

Recruitment Procedure

Summary :

- Five rounds - Coding(0) + Technical(1,2) + Fit(3) + HR(4).
- Round one & two focuses on your strengths / resume.
- Round three focuses on how well you would fit into the organization (technically).
- Round four also focuses on your fit, but in a more employee specific way.
- Overall the questions were simple/standard and didn't require one to understand some advanced concepts.

Round 1:

- Question1: Walk me through your resume.
- Answer1: Give a brief overview of your last 2/3 years of college life in a technical way. Talk about the projects you have done, the areas you have explored and how all this ties together with the role for which you are applying.
- Question2: What are your favorite subjects?
- Answer2 : The interviewer is looking for areas to ask you technical questions in. Ideally you should respond by the areas you most comfortable/well-prepared in. I responded by ML-DSA.
- Question3: Explain how you would build a binary tree from an array. Code the algorithm. How would you extend this to make sure that the tree is not biased towards one side.
- Answer3: Explain the standard way of way of building a Binary Tree and how you can recursively add nodes in it. Explain about Red Black and AVL trees, differences among them and how they can keep trees balanced.
- Some Machine Learning questions specific to my projects.

Round 2:

- Similar to the above round.
- Question1: Standard coin change problem - Given some coin denominations, find the number of ways of getting a sum. Also code the algorithm.
- Answer1: Standard DP solution.
- Question2: Given two strings, determine if you can delete some characters from it to construct

the second string. Code the algorithm.

- Answer2: Simple solution involving two pointers that pass through the array.

Round3:

- Asked me to explain the projects on my resume.
- Asked me why I was applying for an SWE role after having such an ML focused resume.
- Asked me some questions on system design but was happy to move on understanding that I didn't have much experience here.
- Asked me why I didn't have a lot of development experience (android/web/full stack).
- Tip1: If you connect well with the interviewer then you can sail through this round by asking them about their experience at the company and how it has impacted their career.
- Tip2: Make sure you come across a candidate who is optimistic about his career path, is ready to take on responsibility, and can justify his motivations for joining the company.

Round4:

- The HR interview is mostly about not showing any red flags that might make you a risky candidate.
- Question1: You did three internships this summer, two of which overlapped for about two months. How did you manage this?
- Question2: You seem to have a research based resume, what are your plans about higher studies?
- Question3: Tell me a situation where you had to work in a team.
- Question4: What problems did you face in the above situation?
- Question5: What did you learn from the above situation?
- Question6: Why Deutsche Bank, why not XYZ company?
- Question7: You interned at XYZ during this summer, why aren't you joining them back.

Important Topics and Subtopics to Remember

I was only asked question related to DSA, and ML (had an ML heavy resume). although it's a good idea to cover OOP/DBMS/OS for other companies.

Sources of Preparation

- Implement all the standard DSA questions from an interview preparation website such as Leetcode (preferred) or Interviewbit/GeeksforGeeks (not recommended).
- Be comfortable with everything on your resume.

Additional comments

- Be comfortable talking to the interviewer and connect well with them.
- Make your resume information dense and explain your projects well in it.



-
- Be clear about what you have not prepared for.
 - Have answers ready for standard behavioral questions.
 - There is some randomness/noise in on-campus interviews so focus on clearing as many coding rounds as you can.



Deutsche Bank

Pune / Bangalore

IT

Compensation Offered (CTC) : 1963360 PA

B.E. Computer Science

CGPA: 7.12

Recruitment Procedure

Coding Test : 3algo ques to be solved in 2hrs and the questions were moderate-hard level.

Q1 Given a string cut it at any position($\text{len} \geq 1$) and rejoin first part to the second and eliminate the duplicates at this junction. Find the min. length of such possible string.

Q2 Find the kth number such that there are no consecutive 1's in its binary format.

I solved only 2ques and only 3people were qualified for tech interview.

Round1(Tech) : 45min interview.

Questions asked are:

- Asymptotic analysis and finding time complexities of some tricky loops(it finally jots down to $O(\log n!)$ need to simplify).
- Complexity comparison of row major and column major matrix traversal.
- Scenario where I used Polymorphism in my summer internship project and suggest alternative ways of accomplishing it.
- System Design ques to design database of Google search. Most of the time was spent on this as a detailed explanation was required for multiple approaches

Round2(Tech): 1hr Interview.

- Deep dive into my projects
- Few questions on OOPS principles and was asked to demonstrate with suitable examples.
- How to swap two numbers without using extra space.
- Create a doubly linked list DS using only forward pointer.
-

Round3(Managerial) : It was a very critical interview as they will check if you are fit for the organization.

Very sensitive questions were asked like "Will you swap DB with Google after you join?" "You ready to work on weekends?" "What's excites you in technology?" "Are you ready to work at any place allocated?"

Round4(HR):

General questions were asked about the situations where i took lead in a project, failed in a task and how i overcame it, plans for higher studies, where I see myself 18 months henceforth.



And it was done!
2 people were finally selected.

Important Topics and Subtopics to Remember

Make sure you have complete knowledge about everything you put on your resume they may deep dive into any of the topic that they are expert at.

Solve LeetCode Problems → DSA for selected topics that you are weak at.

For OOPS,OS,DBMS you don't need to prepare anything extra than what is taught in class.

Sources of Preparation

GauravSen videos on System Design

LeetCode & gfg - DSA , Interview Bit for prev year company archives.

gfg notes for OS,DBMS,OOPS is very helpful for last minute revision.

Deutsche Bank

Pune

IT

Compensation Offered (CTC) : 1963360 PA

B.E. Computer Science

CGPA: 6.93

Recruitment Procedure

Round 1: Coding Test

1 medium graph question

1 medium DP question

1 tough array question

cutoff was 2.5/3

Round 2: Technical Interview(1)

Intro, Very basic questions- Normalisation, indexing, merge sort, do while loops, basic logic puzzles, discussion on resume

Round 3: Technical Interview(2)

Intro, Recursive Graph Question, System Design (Design LMS), Deep discussion on resume, why bank?

Round 4: Hiring Manager round

Discussion on resume, questions on honest and integrity, questions on character, hypothetical situations and dealing with them. Very testing round

Round 5: HR Round

Basic formality, do you have PAN Card, Passport etc.

Important Topics and Subtopics to Remember

DSA:- Array, stack, linked list, heap, map, tree, dp, graph (only bfs and dfs)

DBMS:- Normalisation, indexing, design databases for given problem

OOP:- 4 principles, interfaces, abstract classes, aggregations, oo design

OS:- Thread vs process, scheduling processes, memory management, segmentation, paging etc

CN- Basic level, tcp vs udp, topographies etc



Sources of Preparation

Geeks for Geeks:- Paid DSA Course (<https://practice.geeksforgeeks.org/courses/dsa-self-paced?vC=1>)

Geeks for Geeks:- Top interview questions
(<https://www.geeksforgeeks.org/must-do-coding-questions-for-companies-like-amazon-microsoft-adobe/>)

Leetcode:- Top interview questions
(<https://leetcode.com/problemset/top-interview-questions/>)

Geeks for Geeks:- Paid OS DBMS CN Course
(<https://practice.geeksforgeeks.org/courses/SDE-theory?vC=1>)

The Urban Fight:- For behavioural questions
(<https://www.youtube.com/channel/UCMSI1Ck1mJOaxxwJ0bZrYhQ>)

Additional comments

Please prepare on your projects/internships mentioned in resume, you will be thoroughly examined on these, these will be the make or break for selection. DO NOT LIE ON YOUR RESUME. Try to keep your CGPA above 7, a lot of companies have 7 cutoff :(

Deutsche Bank

Pune

IT

Compensation Offered (CTC) : 1963360 PA

B.E. Computer Science

CGPA: 7.18

Recruitment Procedure

1) Coding Test (1 hour 30 min)

Hosted on Hackerearth. 3 Problems - 1 Easy, 2 Medium-Hard

2) Tech Interview - 1 (1 hour)

Introduction, followed by problems on DSA (recursion/DP, binary search, linked list related) and OOP (based on pillar principles)

3) Tech Interview - 2 (1 hour)

DSA problems, OOP, discussion on resume content (I mentioned Docker, so we had a discussion of the same - What it is? Why docker? Docker vs VM etc.)

4) Managerial Interview (30-40 min)

More like a conversation with a senior executive. Discussed past experiences, resume and a RDBMS schema design problem.

5) HR Interview (15-20 min)

Typical HR stuff (Would recommend remembering company's key values from the JD presentation for Managerial and HR rounds)

Important Topics and Subtopics to Remember

DSA, OOP, DBMS, OS

Sources of Preparation

LeetCode, GeeksForGeeks

Additional comments

The compensation also includes performance based bonus of around (1-1.5 L) which was mentioned in the company's ppt but not in the JD (where it is 19.63 PA).

Dremio

Hyderabad

IT

Compensation Offered (CTC) : 2400000 PA

B.E. Computer Science

CGPA: 7.27

Recruitment Procedure

Round 1: Resume Shortlisting: I am not sure about how the selection happened but do focus on your resume. It is an extremely underrated part of the process. It is not as much about how much you've done but more about how you present what you've done. Make sure it's styled well and appealing to the eyes and try to get recommendations as well. Most importantly try to make your resume authentic to who you are- you should be proud of it!

Check out the resumes of your friends who've also gotten shortlisted based on resumes (that's what i did and it helps a lot).

Round 2: The interview rounds composed of 3 interviews. The first 2 were mandatory and there was a further shortlisting for the third round

1. Design the malloc system call library. I had to design functions to get memory and free memory in the most optimal way possible. To answer this I used what we had done in operating systems- (best fit) and linked lists.

2. A basic BFS/DFS question. I stumbled a lot in this round but corrected myself every time. A lot of emphasis was placed on why BFS/DFS, and why I was writing the code i was writing.

3. Basic questions about myself- my experience in my previous internship and then one thread question that wasn't obvious. I needed a hint that it was related to threading

Important Topics and Subtopics to Remember

Operating Systems(especially threads and memory mgt), Data Structures and Algorithms - graphs, trees.

Sources of Preparation

I mainly used Interviewbit and leetcode. For Operating Systems what i had covered in college was enough. If you're a non cs student i'd suggest checking out Mythili Vutukurus lectures. They really helped me with concurrency.



Additional comments

DSA is important but please don't assume it's the only important thing- it's very easy to fall into that trap. Your resume makes a difference and will help you stand out so spend time on it and also CDCS like OS OOP etc. Also a really helpful tip i got is that don't spend time on questions that are way to hard- stick to easy and medium

Feel free to reach out to me if you need anything! And keep the faith, and stay positive and relaxed. Everything will work out just fine, take care of yourself, enjoy the learning and the PU will get great companies. :D

Dremio

Hyderabad

IT

Compensation Offered (CTC) : 2400000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.78

Recruitment Procedure

We had three rounds of technical interview. No online coding round was there. Applicants were shortlisted for the interview process based on CGPA and Resume.

Round 1:

After a brief round of introduction the interviewer asked me a question on sudoku.

The first question was to write code to check whether the initial state of the sudoku is feasible or not(i.e, whether the numbers in the sudoku satisfies the required criteria).

Once I wrote the code for that and explained my approach, he asked my approach on solving the given sudoku. I explained my approach based on recursion and backtracking. I didn't had to write the code for that.

Round 2:

A doctor can sit from 6:00 in the morning till 6:00 in the evening. He has got a set of patients to whom he can give appointments. Each appointment will last for 15 minutes. Each patient is available from 6:00 in the morning but not all of them are available until 6:00 in the evening. The ability to pay varies from patient to patient. Write a program to arrange the appointments for the patients in such a way that the doctor is able to maximize the profit.

Solution: Greedy algorithm based solution approach.

Round 3:

Two questions were asked.

1) What is a heap? Explain and write the algorithm of insertion of data into a heap.

2) A set of plane tickets indicating boarding point and destination is given. The plane tickets are jumbled in order. Find the actual starting and destination point of the traveler if there is one(It is possible that there are no starting and ending point i.e, the traveler is travelling in a loop. Or, there can be multiple final destinations or multiple starting points).

Important Topics and Subtopics to Remember

The candidates should be strong in DSA. Knowledge about data structures like circular queue, double ended queue, heap, set etc. are important.

OOP is important, although it was not asked in Dremio's interview process. Only DSA was asked for Dremio.

Some top companies might ask you system design based questions (For example, design a url shortener).

Sources of Preparation

GeeksforGeeks, InterviewBit, Hackerrank

Additional comments

Start your preparation early and be consistent about it. Be thorough with everything in your resume. Be thorough with basic DSA and OOP concepts.

While practicing DSA questions, if you come across a question you cannot solve by yourself, instead of just going through the solution try to code it and also, write the solution and the approach in a notebook. It will be very useful for future references.

Talk clearly and loudly during interview. Always be vocal about your approach. Ask doubts and clarifications about the question clearly until you understand the question properly.

ExxonMobil

Bengaluru

Chemical

Compensation Offered (CTC) : 1081000 PA

B.E. Chemical

CGPA: 8.83

Recruitment Procedure

Round 1: Online Test:

There were two parts. The first part had 3 sections : Verbal, Logical Reasoning and Math. Each section had 20 questions and overall time was 60 minutes. Questions were pretty simple but very lengthy, and each section has a cut-off so make sure to answer a good number of questions in every section. The second part was a technical test for half an hour. Mostly thermodynamics, kinetics and reactor design, and fluid mechanics questions were asked. In thermo, they asked a lot about the carnot cycle etc.

Round 2: Group Discussion: There were around 7-8 people in each group discussion. Mostly very generic topics, nothing related to current affairs. My topic was on how to improve motorvehicle fatalities in India. They are looking for good communication skills, and a good team player. Try to make 3-4 points spaced out over the entire GD (don't make one long speech with all your points) and listen to others and refer to their points as well.

Round 3: Interview: This was a combined technical and HR interview.

First they asked me to discuss my projects and internships. They cross-questioned me a lot to see what I had done and what I understood, so make sure to have a thorough knowledge of them.

They asked me what my favourite subject was to which I said process control. They asked basic questions about types of controllers and what controller would you use in different situations. They also asked me questions on heat-exchanger design as I had done that during my internship

They also asked a lot of behavioral questions. They asked me describe specific situations like did you ever get into a conflict with a team-mate and how did you resolve it.

Lastly they asked if i had any questions for them. Make sure to have atleast one relevant question ready.

Important Topics and Subtopics to Remember

Thermodynamics(especially carnot cycle, P-V diagrams etc.)

KRD (basics are enough)

Fluid mechanics

Sources of Preparation



I didn't have much time to prepare so I mostly looked at aptitude tests to practice speed for the first part. I looked at GATE questions (the MCQ ones) for the technical part. I also went through all the project reports listed on my resume thoroughly.

Additional comments

During the GD and interviews, they are mainly looking for communication skills so make sure to articulate your answers well. Keep atleast 2 subjects as your favourite and prepare the basic really well. Have 3-4 stories from your experiences ready for the behavioral questions(Look up the STAR method for answering HR questions). Do know the projects you have listed on your resume like the back of your hand, they will cross-question you a lot. But it is not a stress interview, it is a very candid conversation that you can steer whichever direction you want.

ExxonMobil

Bengaluru

Chemical

Compensation Offered (CTC) : 1081000 PA

B.E. Chemical

CGPA: 7.94

Recruitment Procedure

No round is campus specific. You will be competing with guys from both Pilani and Hyderabad campus.

Round 1 : Online Test : 60% Aptitude+Math+English, 40% core chemical questions. Aptitude questions were easy, very similar to CAT questions. Math questions were mostly from set theory and probability and english questions were entirely comprehension based. Core chemical questions mostly included thermodynamics and some high school chemistry. The online test is very very long, make sure you manage your time judiciously.

Round 2 : Group Discussion : We were divided into groups of 8 and the topic for our GD was "Did government use data and technology effectively to fight Covid." The GD lasted for 15 minutes. They check you on your grammar and pronunciation.

Round 3 (Final Round) : Technical Interview : They asked what's my favorite subject to which I chose Heat Transfer, so they asked me to design a shell and tube heat exchanger. They weren't concerned with formulas but just the intuition. Then they proceeded to ask me about all my chemical related projects. They also ask a lot of standard as well as situational HR questions, so make sure you prepare those.

Important Topics and Subtopics to Remember

Thermodynamics, Class 12th maths, all one favorite CDC.

Sources of Preparation

Just search for GATE videos on any of your favorite CDCs.



ExxonMobil

Bengaluru

Chemical

Compensation Offered (CTC) : 1081000 PA

B.E. Chemical

CGPA: 7.85

Recruitment Procedure

Round 1: Online test

There were 2 parts. First part had questions on English, Logical Reasoning, and Quantitative Ability. Questions were of easy to moderate level difficulty. But the number of questions was quite high. You need to correctly answer at least a certain number of questions in each section as there is a section-wise cut off. The second part is on Chemical Engineering. A lot of questions were from Fluid Mechanics and Thermodynamics. Some questions also we asked from KRD.

Round 2: Group Discussion

During our time, each GD had 8 candidates. The topic I got was "Per capita motor vehicle fatality in India is higher than in USA and China. How can we improve this situation?". Just like any other GD, the main skill tested here is Communication. Hence, talk politely and calmly. Put your points forward in a civil way. But also, don't just sit quietly the whole time.

Round 3: Technical Interview

The interview will begin with you being asked to tell about yourself. Then you will be asked questions based on your Resume. Hence you have to be thorough with all the projects you have mentioned in it + the concepts on which your projects are based on. Say you have mentioned something about Distillation anywhere in your Resume, expect to be questioned on that. Next, you will be asked your favorite subject. I had chosen Mass Transfer. They asked questions accordingly. Next, they will ask HR based questions. I was asked "If I ask some friend of yours to talk about you, what will he/she say?", "Tell me about a time you surpassed somebody's expectations.", etc.

Important Topics and Subtopics to Remember

Fluid Mechanics,
Heat Transfer,
Mass Transfer,
Kinetics and Reactor Design,
Process Dynamics and Control,
Process Design (for ex: Heat Exchanger Design),
Thermodynamics.



Sources of Preparation

Course textbooks for all the subjects are excellent resources. You can also watch NPTEL videos.



ExxonMobil

Bengaluru

Chemical

Compensation Offered (CTC) : 1081000 PA

B.E. Chemical

CGPA: 8.82

Recruitment Procedure

Round 1: Online Test

The test was one hour long and was divided into two sections. The first section tested the candidates' quantitative, verbal and reasoning skills. The pattern of questions was similar to those asked in standard tests like the GRE. The verbal part included reading comprehension, text completion etc. The quantitative part focused on topics like elementary algebra, geometry, probability etc. The second section was based on chemical engineering. The questions weren't particularly tough or lengthy, but certain questions did focus on topics that weren't extensively covered in our curriculum (e.g. Turbines).

In summary, the first section tested the candidates' aptitude whereas the second section tested the candidates' knowledge and understanding of core concepts in chemical.

Round 2: Group Discussion

As far as I can remember, around 80-85 students were shortlisted for the group discussion. They were then divided into groups of 7-8. All the general rules and etiquettes of a GD were expected to be followed. From what I gathered, the topics were quite general. The GD started with a one-minute self-introduction of the group members. My topic was about discussing 3 major policy reforms the Government of India should focus on to improve the nation's infrastructure. The interviewers were very cordial and I didn't feel any pressure of delivering a fabulous argument or making a mark. I simply put forward my points and tried to explain why I feel they are important. I feel there isn't a lot to succeeding in a GD except following the general guidelines of a GD and being articulate.

Round 3: Technical and HR interview

This was the final round of the interview and it is unique in the sense that usually Technical and HR rounds are distinct; however, they were combined here. This was a one-to-one interview with 3-4 team members assessing the candidate on several questions. ExxonMobil interviewers were very polite and did not unnecessarily try to intimidate or surprise me with curveballs. This round was based on evaluating my CV and asking me to explain my experiences or projects to them. They assess you based on how well you can explain your projects and your contribution to the project. Some interviewers(including mine) also ask about our favourite courses and then ask questions in that field. In my experience, I was just asked my favourite course and was asked to describe what I was taught in the course. Keep in mind that I was a bit lucky here, some interviewers may ask technical questions which might either be really challenging or something you haven't heard of. In such a case, my suggestion would be to stay calm and try to answer a

question logically. If it is something you have no idea about, it's better to inform the interviewer that you can't recall the topic instead of just guessing the right answer. The HR part of the interview consisted of common questions (E.G.- Why Exxon? Why should we hire you? Give us two strengths and two opportunities for improvement etc.). Finally, they ask the candidate if they have any questions for the interviewers. It is always good to have a question ready for them. In short, the questions leaned more towards the HR part. The interview lasted around 40-45 mins and was conducted on Zoom.

Important Topics and Subtopics to Remember

A sound conceptual understanding of the CDCs is definitely key here. However, the core chemical courses (Thermo, All the Transport Phenomena, PDC) are more important from the interviewer's point of view compared to courses like Numerical Methods and Engineering Chemistry. I'd suggest revising the core concepts of all the Transport Phenomena related courses should be the starting point for preparation, followed by going through subjects like Mat. Sci., PDC etc.

Sources of Preparation

I didn't prepare from any such specific source for preparation. I think that going through the slides(if they are detailed) is enough as they won't really ask you to solve a numerical in the final interview. So the recommended textbooks and slides are more than enough for preparation.

Additional comments

I feel that ExxonMobil has faith in the shortlisted candidates and doesn't really test them a lot on technical questions(apart from the first online test). It is important to look at it through the interviewer's point of view. They aren't looking for a person who can just solve chemical engineering questions. As the interviewers are themselves very experienced engineers, they are not too concerned about asking simple definitions. They'll probably focus more on some concept(For eg.- Critical Radius for Heat transfer) or the reasoning behind a certain setup(For example, in a shell and tube heat exchanger, where does the cooling fluid flow: Shell, or Tube?). This is my understanding of the interviewer's thought process. I wasn't asked such questions in my interview, but they are definitely a possibility.

ExxonMobil

Bengaluru

Chemical

Compensation Offered (CTC) : 1081000 PA

B.E. Chemical

CGPA: 8.13

Recruitment Procedure

Round 1: Resume Shortlisting

- CGPA - cut-off was 7

Round 2: Group Discussion

Topic- Impact of media in changing the mindset of people

Platform- Zoom

Pointer- Make atleast 2-3 relevant points, let others speak, be confident.

Round 3: Panel Interview

There were 3 panelists.

Q1- Introduction

This will be key in steering the interview where you want it to go. Give brief highlights of your resume, your strong points and include soft skills as well as hard skills and experiences.

Q2- Project details, impact, application,etc.

Note: Some of the questions were just generic follow ups. May or may not be relevant for assessment.

Q3- What is your biggest failure in life?

Q4- Who is your inspiration?

Q5- How did you handle doing online projects, challenges faced, how did you overcome them, etc.

Q6- Expect questions related to resume, minor details can be highlighted and questioned. There were questions to check my inclination/ability to work in a non-tech/non-core side role.

Q7- They will ask questions to check your compatibility with company's dynamic roles and changing roles during your tenure.

Q8- Do you have any questions for us?

Go do some research on the company. Have atleast one unique question. Show them that you have put in efforts!

Important Topics and Subtopics to Remember

For ExxonMobil Chemicals specifically, the interview revolved around the resume and HR questions. I would recommend answering questions using the STAR technique. (situation, task, action, result) and the most obvious but seldom done- thorough introspection. Have anecdotal evidences to support your skills/qualities. So dig deep!

Also, have an idea about the motivation behind taking up projects/internships/PoRs etc.

Sources of Preparation

Anything related to your resume. For core chemical projects, understand the basic concepts. All the topics covered during CEL1 and 2 can be a good starting point if you are running short on time.

Additional comments

All the best!

MathWorks

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2050000 PA

B.E. Computer Science, M.Sc.Chemistry

CGPA: 8.03

Recruitment Procedure

Round 1: Online Test

The Online test consisted of many MCQs divided into the following segments - C, Java, OOP, DBMS, Aptitude, and a bonus Python section. Also, the test had 2 Programming questions, which were to be coded in 2 different languages (I used C and C++). Questions can be repeated from previous years' inter iit bits placement docs(refer them).

Round 2. Technical Interview (1hour 15 minutes)

There were two interviewers and there was a common HackerRank platform on the screen for the interviewer to post Questions and for students to write the code.

At the beginning I was asked about my work experience and projects and a few follow up questions based on them. After that he asked me to choose 2 programming languages. I chose C and C++. Then I was asked many questions on C, C++ and OOP Some questions were asked orally and for the others the interviewer gave some snippets of code and asked me to either judge the output or to make some changes in the existing code or in some cases write the program from scratch.

Coding questions:

1) Largest subarray with equal number of 0s and 1s

<https://www.geeksforgeeks.org/largest-subarray-with-equal-number-of-0s-and-1s/>

2)Find whether linked list contains loop and if yes find first node of loop in a linked list.

<https://www.geeksforgeeks.org/find-first-node-of-loop-in-a-linked-list/>

Then was asked to dry run my approaches and time and space complexity.

OOP code snippets were based on operator overloading ,overriding, polymorphism and interfaces.

C++ code snippets were based on pointers.

At the end i was asked what is Cyclomatic complexity.

Round 3: Managerial HR round (45 mins)



In the beginning, I was asked about my work experience and projects and had a detailed discussion about them. Then I was asked some questions based on real-life situations, for eg. What will you do if you disagree with your boss ? Answered all the questions as diplomatically as I could. He asked me about my location preference and the reason for my answer. Next, he asked me about my understanding of what MathWorks EDG is. (attend PPT) and why I wanted to join MathWorks.

Round 4: HR Round (30 mins)

Typical HR round Questions on hobbies, parents, strengths, weaknesses and situation-based questions and support them with examples.

Important Topics and Subtopics to Remember

Practice DSA from interviewbit and GFG and refer previous year Inter-IIT bits docs.

Go through frequently asked interview questions on C, C++, OOP, DSA from GFG. Be thorough with your projects. Almost all the tech interviews start with the questions on your projects.

Sources of Preparation

Attend the sessions held by seniors for placement preparation and lists of questions provided by them and solve from interview bit and gfg.

MathWorks

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2050000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 8.74

Recruitment Procedure

Round 0: Online Test

For BTech Students, MathWorks offers two tracks - CS and Engineering (essentially Electronics) tracks. I opted for the engineering track. The test asked basic questions from Control Systems, Digital Signal Processing and Embedded Systems. I hadn't done Embedded Systems but thankfully only 2-3 questions were asked from the topic so it didn't cost me heavily. Additionally, programming theory and language-specific questions (C/C++/Java) were asked. There were 2 coding questions (easy/moderate level). The bonus section had MCQs on MATLAB commands.

Around 20 students were shortlisted from the test. Before the interviews, a Group Discussion was held in groups of 5. The topic given to us was "Team Work vs Independent Work". We were given a couple of minutes to prepare. The GD consisted of 3 rounds. In the first round, everyone had to speak for a minute on the topic. In the second round, we had to give examples to support our stance. And in the third round, we had to engage with other candidates and discuss/debate it.

There were 3 interview rounds that took place in a different order for everybody - Technical, HR and Managerial Round.

Round 1 - Technical Round

My first round was the technical round and was taken by two interviewers. I was initially asked questions based on the projects I had listed in the resume including the MuP project (a large part of the interview focused on the projects). The interviewer then asked me rate my knowledge on the courses listed in the resume and asked me some basic questions on the courses that I rated highly - DSP, DIP and SAS (I gave an honest rating for courses that I wasn't comfortable with and thus avoided questions on subjects like ADVD).

This was followed by questions on programming in C and C++ (any 2 languages of your preference). I was asked some questions from OOP as well. Then I had to debug two codes. This round isn't very difficult if you have a decent grasp on the basics of OOP and DSA.

List of Questions:

Course Specific:

1. What is the difference between IIR & FIR filter? Which is one is more stable? (DSP)
2. What are the different types of noise in images? (DIP)
3. (followed up by) What are the different types of filters? Give examples of which filters are suitable for certain types of noises.

Programming Questions:

1. Difference between C & C++. Define the 4 basic OOP concepts.
2. Difference between getch and getche.
3. What are inline functions? When are they used?
4. How are maps implemented?
5. Questions on overloading of main.

Round 2 & 3 - HR and Managerial Round

Although these round were taken separately and by different interviewers, a lot of the questions were similar.

Common Questions:

1. Explain your understanding of the EDG role. (Imp - Mentioned in the pre-placement talk)
2. Give your location preference and justify it. (Imp - The location preference cannot be easily changed later so it is important to decide beforehand)
3. What are your future plans for higher education? Why aren't you going for MS? Where do you see yourself in 5 years?
4. Why MathWorks?
5. Give an instance of when you faced a problem and how you resolved it.
6. What are your strengths and weaknesses?
7. Who is your role model?
8. Some teamwork related questions like do you prefer working independently or in a team, what are the issues you have faced while working in a team etc.

Manager Round specific questions:

1. What are your hobbies and interests? How do you manage time between co-curricular activities and studies?
2. How would your friends describe you?

The entire interview process ended in 3-4 hours. Each round was around 30-45 minutes long. All the interviewers were very warm and didn't make me feel intimidated at all.

MathWorks finally extended the offer to 2 candidates. An important point to note is that if you are doing PS in semester 2, they require you to do PS with them.

Important Topics and Subtopics to Remember

Data Structures and Algorithms, Object-Oriented Programming, basic concepts of certain CDCs/DELs that are relevant like DSP, DIP, Control Systems, Signals and Systems, ADV D, MuP (for the interview).

Sources of Preparation

GeeksforGeeks

LeetCode

InterviewBit

Additional comments

Revise the projects you have listed in your resume thoroughly. If the interviewers are familiar with the area of the project, they will question you rigorously on it. For the online test, there will be 2 coding questions, and they have to be coded in 2 DIFFERENT languages. As an electronics student, I was confused about which track to opt for as I was preparing for IT and not core electronics. For the engineering track, both the test and interview focused on programming. Thankfully, the electronics questions asked in both weren't very difficult and just required an understanding of the basics (I had only briefly revised Control Systems before the test). Don't forget to be confident in the interviews even if you are unsure of the answer.

MathWorks

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2050000 PA

B.E. Electronics & Communication Engineering

CGPA: 8.65

Recruitment Procedure

Round 0: Online test

The test had 2 options provided in advance. You could choose the CS stream or the engineering stream, this choice had to be made before the test. In the CS stream the first section had math and logical reasoning and CS fundamentals, MCQs from DSA, OS, OOP and DBMS. Both sections were compulsory.

Next section had 3

sub-parts, MCQs based on language fundamentals. 3 languages were given. C, C++, Java. We had to pick any two and answer. Next section had 2 programming questions, the rules mentioned we had to use 2 different programming languages, as in, if one question was answered in C, the other had to be in C++ or Java. Both questions were easy, one was arrays, another required HashMaps. Last was a bonus section on MATLAB. For the engineering stream, there were a few differences, the first section along with math and CS fundamentals had MCQs from SAS, ConSys(Signal flow graphs and transfer functions) and embedded systems, basically CompArch/MuP. The other difference was we only had to select one language between C C++ and Java for the language fundamentals section. There was no branch restriction, even EEE/EIE/ECE students could take up the CS stream.

Based on this, 18 people were shortlisted.

Round 1: Group discussion

Immediately after the PPT, we were split into groups and we had a GD, 5 people in a group while an interviewer listened and guided the discussion. I'm not sure how much importance was assigned to this round, but it's best to take it seriously. Topics are random, ours was whether soft skills mattered more than technical skills in a company or not. This went on for 30 mins.

Round 2: Technical round

Here I want to mention that the order of rounds is arbitrary, between HR Technical and Manager rounds, any could be first. And each round is an elimination round.

In the tech round I had 2 interviewers. They were friendly, asked me about myself and my background, hobbies, family etc. They then asked me about my projects from my CV. Wanted to know about the challenges I faced and how I got around them. Then I was given a question, this was on linked list, I had to insert one linked list in the middle of another in between specific positions. After this I was asked some basic OOP questions. The interviewer saw my branch (ECE) and asked me questions from DD and from CommSys. All the questions were relatively simple. Some questions were, what's the difference between a latch and a flip flop, explain race condition, and questions about digital modulation.

Round 3: HR round

Here I was asked the standard questions one would expect. He asked me questions on how I would deal with teammates and bosses and asked me about my summer internship. The questions weren't technical but were about my interactions with my mentor and any conflicts which arose. Few things to be clear about is the exact details of the role, they will definitely ask this. They also ask for your location preference during the interview, this will be your final location, so choose wisely between Hyderabad and Bangalore. Some more standard questions on strengths, weaknesses etc.

Round 4: Managerial round.

This was taken by a very senior manager, with 17 years of experience in the company. Coincidentally, he was present during my GD as well. He went through my CV and was particularly interested in my experience as PMP mentor. He asked me about all the challenges I faced, what I learnt and if I had a chance to apply it.

More questions on my CV and internship, my hobbies and interests, why MathWorks, etc. He was very friendly throughout.

Result: 2 of us were selected

Important Topics and Subtopics to Remember

DSA(Obviously)

OOP

OS and DBMS

Special note, if you're in electronics expect some basic questions from DD Commsys and DSP.

Sources of Preparation

Geeksforgeeks for DSA and OOP

Leetcode and interviewBit for practice.

College courses for the other topics

Additional comments

MathWorks put a little more emphasis on soft skills and was the first GD I had to give, so good speaking skills is a must

Maruti Suzuki

PAN India

Mechanical/Design

Compensation Offered (CTC) : 825000 PA

B.E. Mechanical

CGPA: 6.57

Recruitment Procedure

Round 1: Online Test: The test was conducted on online platform AMCAT with strict video proctoring. The test consisted of 5 sections namely English Comprehension, Quantitative Ability, Logical Ability, Technical Test, Psychometric Test. All the questions were of MCQ type.

Round 2: Interview Round: The interview round was of moderate difficulty and mainly focussed on projects and prior experiences. There were some technical questions too, but were very basic.

Important Topics and Subtopics to Remember

Production Techniques

Thermodynamics

Prime Movers and Fluid Machines

IC Engines

Material Science

Heat Transfer

Sources of Preparation

Lecture Slides and Notes should be sufficient. For last minute preparations, I found NPTEL very useful.

Lentra.AI

Pune

IT

Compensation Offered (CTC) : 2200000 PA

B.E. Computer Science

CGPA: 7.8

Recruitment Procedure

Round 1: Online test:

1st part-Aptitude(questions on logical reasoning, probability, quantitative aptitude, numerical problems)

2nd part-MCQ on CS subjects, mostly OOP and DBMS. These type of questions can be found in the quiz section of geeksforgeeks and previous GATE questions.

Round 2: Technical Interview:

Detailed discussion about projects mentioned in the resume.

Common Operating System questions regarding process states, semaphores and questions on DBMS transactions, ACID properties

Important Topics and Subtopics to Remember

Semaphores, Process and Threads, DBMS transactions, OOP concepts

Sources of Preparation

Geeks for geeks, Leetcode

Additional comments

Be thorough with everything mentioned in your resume and basic concepts of all CS subjects.

Lentra.AI

Pune

IT

Compensation Offered (CTC) : 1100000 PA

B.E. Computer Science

CGPA: 7.47

Recruitment Procedure

Round 1: Coding test:

Duration - 90 minutes

Section 1 - Basic Aptitude

Section 2 - Chart Comprehension

Section 3 - Logic (Reasoning)

All 3 sections were MCQ-based, and could be answered somewhat easily without any prior prep. Their only technical question was the Programming question in Section 4 -> This was an extremely basic question.

Round 2: Interview

I only had 1 interview -> this was scheduled for 30 minutes, but mine went on for 2 hours. It was primarily a discussion of the projects on my CV, and the interviewer went out of his way to grill me on each and every decision I made while being involved in these projects.

Important Topics and Subtopics to Remember

Just know basic DSA, and have a good grasp of the coding language you use. Most importantly, know your resume inside out.

Sources of Preparation

GFG + the company website (Know what they do, and why you want to join)

L&T

PAN India

Mechanical/Design

Compensation Offered (CTC) : 600108 PA

B.E. Mechanical

CGPA: 8.19

Recruitment Procedure

Round 1 : Technical Interview

This was the only round.

First I had to speak on a general topic. In my case: 'Are corporate jobs a form of slavery?'

They gave me 2 minutes to think and then I had to speak for 2-3 minutes. You have to give your opinions on the topic, that is, it isn't necessary to choose for/against, you can cite examples where the statement may be valid and otherwise.

Then they asked me what subjects I liked, and I said Fluid Mechanics. Questions:

- 1) State Bernoulli's theorem.
- 2) What is Reynolds number? How can you increase it for a fluid?
- 3) Temperature-Viscosity relationship for liquids and gases.

I answered these correctly, then they asked if I liked any other subjects, so I said Mechanics of Solids. Questions:

State the singularity theorem.

They also asked a specific question related to its application on an I-beam though I can't remember it exactly. I was unable to answer MOS questions anyway, as I don't really like MOS but had to say something when they asked for a second subject.

I think it would be best if you prepare 2-3 subjects well. Then again, they might not ask for your favourite subjects and ask whatever they want so perhaps it's better to be good at all (like that'll ever happen :P)

At the end he asked me if I would have some problem with working in a remote place (not too modern is



probably what he meant) and I said no.

Important Topics and Subtopics to Remember

Thermo, Heat Transfer, Fluid Mech, IC Engines, MOS, CAD. These in order are probably the most important. Especially the first four.

Sources of Preparation

I didn't prepare and, as you can see, the questions are pretty basic. Just follow textbooks and understand the obviously important bits and you'll be all right.



Jivox Software India Pvt Ltd

Bangalore

IT

Compensation Offered (CTC) : 1500000 PA

B.E. Electronics & Communication Engineering

CGPA: 7.44

Recruitment Procedure

Round 1: Coding test on HackerRank

4 Easy DSA questions – mainly based on maps, heaps, stacks, queues and graphs.

Round 2: Technical interview

An easy question on priority queue

Modular implementation of LRU cache

The interviewer was young. He asked about projects and summer internship. Some questions on OS and DBMS, but did not expect thorough answers as I was from ECE.

Round 3: Technical interview

No DSA questions.

Asked to provide the system design of a postal system software.

Lots of questions about OS, DBMS and OOP.

Round 4: Technical-cum-HR interview

A puzzle based on multithreading (using pseudo-code)

3 fastest horses puzzle (<https://www.geeksforgeeks.org/puzzle-9-find-the-fastest-3-horses/>)

Important Topics and Subtopics to Remember

DSA, OOP

DBMS, OS (basics only for non-CS students)

Sources of Preparation

DSA:

Interviewbit

Data structures and algorithms made easy - by Narasimha Karumanchi: (you can find a free PDF online) an excellent book containing puzzle-type questions and answers on DSA which you should be thorough with.



Operating systems - https://www.tutorialspoint.com/operating_system/index.htm

Focus on multithreading

OOP - course slides

Additional comments

Tips for non-CS students:

Don't skip DBMS and OS. In most interviews, the interviewer won't directly ask you questions from these topics. Rather, they will first ask something like "Are you familiar with operating systems?" It might be tempting to answer no and give your branch as the excuse. But understand this will never positively impact your candidature. The effect will either be neutral or negative. Always answer yes, even if you're not very familiar with them.

Flipkart

Bengaluru

Product Management

Compensation Offered (CTC) :2671000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.75

Recruitment Procedure

Round 0: Deck Submission

In this round, you have to make a presentation (6-9 page ppt) on a certain product which you have found improvements for, following the prompt provided by Flipkart. In my time, the prompt involved COVID, and any product that was influenced by the pandemic could be chosen. For reference, I had chosen Duolingo, which had experienced a huge surge in popularity during the lockdowns. Make sure the product you choose in this round is something that you've used personally. You can search online for pitch decks of popular startups to get an idea as to how you should be prioritizing design and content. Remember that close to 3000 applicants try their luck in this round and only about 30 get selected for the next round, so make sure you pay utmost attention to detail and structure. Get as much feedback from friends as possible.

If you get selected after this round, you're going to be a part of a 3 week "Buddy Session" which will essentially train you, not just for the next rounds but also give you a holistic idea regarding Product Management and the day to day life of PMs. Make sure you fully exploit this opportunity as you will get to interact with lots of like-minded batchmates and seniors from the industry as well.

Round 1 & 2: Problem Solving

In these rounds, your thought process and ability to break down problems will be judged. You will only receive a very vague problem statement like "You are a PM @Swiggy, orders have dropped by 20%. Find out why." (my first round's question) and you'll have to drill down to the root cause. Do not jump directly to solutions, try to be breadth-first, and exhaustively cross out all possibilities exhaustively before diving deep.

In my second round, the problem statement was "Mark Zuckerberg wants you, the Product Lead of WhatsApp, to device a strategy to monetize WhatsApp". Again, it might sound very tempting to jump directly to solutions but make sure to follow a structured thought-process and make the interview conversational.

Round 3: Product Thinking

Perhaps the most difficult as well as the most fun round of them all. This is the round where you have to "design" or "improve" something - be it an app, a physical product, or even a service. My exact question for this round was "Design a cheap alarm clock for the visually impaired". While at first glance, PT questions may sound simpler, there's actually a lot more to it than basic PS. Try to think big-picture and really try to

flex your cranium in these rounds. Again, make sure you ask enough questions to your interviewer to fully understand the scope of the problem (eg, what according to us is cheap in this context?) and make your solution as structured and easy to follow as possible.

Round 4: Tech Evaluation

Product Management is very often miscategorized as a non-tech role. This round essentially tests how well you are able to explain the tech around you: starting from easy stuff like how Google finds webpages according to your search query or how WhatsApp's sent/delivered/read receipts work to complex systems like the recommendation engines at Netflix and Spotify. You won't be expected to code or write software, rather you will be tested on your abilities to communicate with, and lay down your requirements to, the Engineering team. In this round, I was asked about the Recently Viewed section on the Flipkart app - right from the implementation to handling cases like removing the purchased items as well as edge cases like not updating the section if similar items were viewed.

Round 5: Fit Round

This is basically the HR round where behavioral questions are asked. Very standard questions like "tell me about yourself" to tricky ones like "choose one other candidate apart from you from the final shortlist" are asked here, so don't stress over this round. Just be yourself and have a little preparation for the standard questions that are expected.

The most important thing to remember in these interviews is to have fun. Do not treat them like life-or-death, make-it or break-it situations. Just try to have a fun conversation with your interviewer and try to make it as beneficial for you as possible (consider this as an opportunity to talk to top-executives of a fantasy company) by trying to learn as much as you can from them.

Important Topics and Subtopics to Remember

None as such, however, considering the massive shift towards data science in product management roles, having a strong understanding of ML and relevant courses would be very helpful. If you do not, that's fine. What's much more important is having the right framework for breaking down problems and arriving at "wow"-ing, but coherent solutions.

Sources of Preparation

1. Cracking the PM Interview - Gayle Laakman (THE Holy Grail. Some chapters in the book are even applicable for all interviews in general)
 2. Decode and Conquer - Lewis C Lin (for different types of questions)
 3. Exponent on Youtube (great source of mock interviews)
 4. Case interviews cracked (for guesstimates and market entry)
 5. Product School on Youtube (great talks by PMs)
-



Additional comments

The biggest skills to have for cracking any PM role are - clarity of thought, creativity, and communication skills. However, coming from an engineering background, be sure to bring something else to the table - be it machine learning, finance, software development, or even mathematical aptitude.

Flipkart

Bengaluru

IT

Compensation Offered (CTC) : 2671000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 7.17

Recruitment Procedure

Round 1: Coding Test

- Q 1. DP coin problem(knapsack based)
- Q 2. Level Order traversal of a binary tree
- Q 3. Minimum spanning tree

Tech Round 1:

Course schedule 2 on leetcode

Find an arrangement such that no two consecutive digits are same in an integer. Eg: 11122233

Tech Round 2:

Assign mice to holes, this was the base question, was asked about different approaches and optimization
2d dp: find the count of the paths giving you maxsum while going from top left to bottom right

Hiring manager:

Valid bst

Delete a node from the linked list

Project discussion

Why software being an electronic student

Family background

Top qualities you might add to the panel in future

Puzzles

All of them were asked in a demeaning and rude manner, so be prepared for that.

Some more questions asked to my friends during the technical interviews:

Search in rotated array 2

Count the number of pairs that concatenate to turn into a palindrome

Delete the nodes that are at a k distance from the parent node in a tree

Lowest common ancestor

Important Topics and Subtopics to Remember



Basic concepts of OOP and OS, Graphs and DP in DSA, Tries (add-ons for technical interview)

Sources of Preparation

Graphs and DP in DSA, Tries - Geeks for Geeks, Interview Bit, Leetcode

Basic concepts of OOP and OS - Sanchit Jain videos on YouTube

Additional comments

All the rounds were started with a brief introduction of me and the interviewer. So, I would suggest to prepare a good answer for that.



Flipkart

Bengaluru

Business Analytics

Compensation Offered (CTC) : 2671000 PA

**B.E. Electronics & Instrumentation Engineering,
M.Sc.Economics**

CGPA: 8.26

Recruitment Procedure

Round 1: Resume Shortlisting

Round 2: Aptitude Test

Round 3: Group Discussion

There were 6 students in the group. Our topic was - "Healthcare in India: Are we ready for another pandemic wave?" Everybody had 2 minutes to speak. It was important to be polite and not cut anybody else while they speak. Initiating the discussion or summarising it definitely help.

Round 4: Technical Interview

Q1: Resume Walkthrough

Q2: Why Business Analyst?

Q3: Why Flipkart?

Q4: Case - You are the category manager for refrigerators and you are witnessing m-o-m decline in sales.

-What would be the metrics you would look at to identify the problem? (4-5 metrics)

-How would you build a case to convince the marketing team to push your category? What would be your plan for the marketing campaign?

-Suppose the decline is due to customers being afraid of making a big-ticket purchase without the physical touch and feel. What would be your recommendations to convert them?

Round 5: HR Interview

Q1: Tell me about yourself.

Q2: Why Flipkart?

Q3: Any situation where the problem statement was very abstract but you found the solution.

Q4: Any situation where you took a risk and it worked.

Q5: Any situation where you had to deal with a difficult stakeholder and convinced them.

Round 6: Technical Interview

Q1: Resume Walkthrough

Q2: Why Business Analyst?



Q3: Why Flipkart?

Q4: Case - You are the category manager for electronic appliances and you are witnessing a decline in market share for the past 2-3 months.

-What would be the metrics you would look at to identify the problem?

Q5: Situation - You are a customer support executive and your customer wants to return a cosmetic product. Cosmetic products are not returnable due to hygiene issues. Pick one of the following options.

1: Straightaway decline the return.

2: Initiate the return.

3. Try to explain why a refund is not possible and decline the return.

Here it was crucial to explain why you are eliminating other options before jumping to an answer. For the option you choose (Option 3 in my case), try to present all possible scenarios and situations relevant to it (eg: figuring out the cause of return - manufacturing defect or customer expectations, and tailoring the answer accordingly)

Important Topics and Subtopics to Remember

Expect these questions -

- Tell me about yourself
- Why BA?
- Why Flipkart?
- Your top 3 dream companies
- Your strengths and weaknesses
- Cases (Specially Profitability cases)
- Questions based on Resume

Sources of Preparation

I was very late in starting my preparation so I could refer to only one source - "Case Interviews Cracked - IIT B"

Flipkart

Bengaluru

IT

Compensation Offered (CTC) : 2671000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 7.56

Recruitment Procedure

Round 1:

Coding Test: 3 Questions 90 mins. One of them was coin change problem.

Round 2: Technical Interview

Question1:

<https://www.geeksforgeeks.org/check-if-value-exists-in-level-order-sorted-complete-binary-tree/#:~:text=Start%20at%20the%20root%20node,on%20the%20nodes%20of%20l>.

Question 2:

<https://www.geeksforgeeks.org/place-k-elements-such-that-minimum-distance-is-maximized/>

Round 3: Technical Interview

2 Questions. One of them was a 2D dp question.

Round 4: HR interview

Some basic puzzles and questions on your past internships and projects.

Important Topics and Subtopics to Remember

graphs, dp, binary search.

Sources of Preparation

Leetcode, gfg, interviewbit.



Flipkart

Bengaluru

IT

Compensation Offered (CTC) : 2671000 PA

B.E. Computer Science, M.Sc.Mathematics

CGPA: 9.11

Recruitment Procedure

I had 2 interviews in total.

Round 1 : Technical Interview

The first interview had 3 DSA problems. I would say, all the three problems were fairly easy.

Problem 1

1st problem was, you're given a string of 0s and 1s, and you are told that the string represents an encoding of 2 special characters, one of the characters (is 1 bit) is encoded as 0, and the other (is 2 bit) is encoded as 10 or 11. You want to check whether the last character can be the 2 bit or not.

Problem 2

2nd problem was just about counting number of connected components in a graph. The statement was written in fancy manner. Then after quickly doing this one, they asked follow up questions like, how would you also keep track of the components themselves, or if I want to print all the nodes in one component, how would you keep track of that information.

Problem 3

3rd problem was, you have two strings S and T. You want to find the longest string X, such that X divides S and X divides T. A string P divides string Q, if Q can be expressed as P+P+...+P for some natural number of occurrences of P.

Round 2 : Technical Interview

For the 2nd interview, it started with brief introduction, and the interviewer was also looking at my resume. He asked me few questions about my resume, my projects, what technologies were used in the projects. Then he also asked this question, given that Insertion sort uses $8*N*N$ operations, and Merge sort uses $64*N*\log N$ operations, at what values of N, Merge sort is better, and when is Insertion sort better. I don't remember any more questions, because we were also having some technical difficulties, and shortly after that we ended the interview. He was impressed by my quick mathematical analysis of the comparison of both the algorithms, and also how close I got to the real value of N where the transition happens. Thus, it would be a good practice to be familiar with mathematics and complexity analysis, and also estimation of



complicated expressions / formulae.

Important Topics and Subtopics to Remember

Computer Programming, Data Structures and Algorithms (DSA), Mathematics and in general analytical reasoning. Very important topics include, time and space complexity analysis, which is a must for every technical interview.

Sources of Preparation

Leetcode, InterviewBit, Geeks for Geeks, and in general, you can google and find resources for particular topics you look for

Flipkart

Bengaluru

Business Analytics

Compensation Offered (CTC) : 2671000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.46

Recruitment Procedure

Round 1: Written Test

We were tested on basic math, english, and business aptitude. The test was simple in terms of difficulty, but the time given was short. The business aptitude section is very similar to the decision making section on the XAT. I would recommend you go through a couple XAT questions beforehand (Tip: always make the most ethical choice, even if it costs the company money).

Round 1.5: Resume Shortlisting

It's unclear on what parameters the resumes were judged.

Round 2: Group Discussion

We were put into groups of 7 and asked to discuss on a particular topic for 20 minutes. The prompt I had was 'Is bias in media ethical?' (not exact).

Round 3: Interview

The interviewer started off by asking me basic questions about my resume (what did you do in your PS, what were your duties as xyz post-holder etc.).

Then he tried to gauge my interest for the role (why business analytics and not consulting/PM, why Flipkart etc.).

After that, I was given a case study to solve. It was fairly vague - 'How would you set-up an online grocery delivery service during COVID? What all factors would you consider?'. Always use consulting frameworks to breakdown such problem statements (I used 3CP).

Round 4: HR

A lot of the questions from the previous round got repeated. The interviewer was trying to understand why I wanted to join Flipkart.

A good strategy for HR rounds is to learn a bit about the company culture and try to bring it up during conversation. This was something the interviewer visibly appreciated.

Round 5: Case Interview

My interviewer was a senior category manager at Flipkart. After asking me a few questions about my resume, she moved on to a case study - 'The growth rate for certain categories on Flipkart has been much

lower than expected. How would you solve for this?

I used the customer journey framework to identify potential blockers for growth. Long story short, it seemed as though fewer people wanted to purchase large ticket size items online because they perceived it as risky. On this point we discussed how Flipkart could better integrate certain BNPL options and how it could build customer trust on this front.

Important Topics and Subtopics to Remember

None. I was not asked about any technical skills. Although you should try to be proficient in Excel and SQL for such roles.

Sources of Preparation

Case Interview Cracked
IIM Calcutta Casebook

Additional comments

- Solving case studies and guesstimates. This is standard for every non-core role. At an undergraduate level you need to be thorough with only profitability and market entry cases.
- A general idea about the e-commerce industry. It is a good idea to know the top 5 trends for whichever industry you're applying to.

Futures First

Hyderabad

Finance

Compensation Offered (CTC) : 1240000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 7.5

Recruitment Procedure

Round 1: Aptitude Test

The test was divided into 3 different sections.

The first section had subparts. First subpart had memory based testing, where a graph/chart was shown for 20 seconds and mcq type questions were asked on those. The other subparts had normal mcq type questions on verbal, quant and data interpretation. There was negative marking in this section. I could attempt around 25 questions from 32 or 34 questions in this section. Around 25 or 30 minutes were given for this section.

The second section was speed math, with fill up type questions. 5 minutes were given for 20 questions with subparts. Very easy addition/subtraction/multiplication/division/BODMAS questions were asked, mainly testing your speed. Try to do as many questions as possible, quickly. This section did not have negative marking. I could attempt around 6-7 questions in this part.

Third section had 4-5 very basic guesstimate questions, where you'd to give your answer and explain your reasoning for arriving at the answer in 4-5 statements each. 5 minutes were given to compete this section.

Round 2: 1st Interview

Before the interview, we had to fill a Google form questionnaire provided by the HR. This form had 15-20 questions, based on various aspects of your life. Some questions I could recall are,

What are your strengths?

What are your weaknesses?

What do you do in your spare time?

Do you have a passion in your life that you actively follow?

Why are you interested in this field?

Do you follow markets?

Tell us about the one time you worked hardest in your life?

Tell us about your biggest accomplishment?

What is your idea of an ideal company?

Looking back, what would you do differently in life?
Tell us about the biggest disappointment of your life?
Who has inspired you and why?
Tell us about your extra curricular activities?
How do you define success and measure upto your own?
What is the biggest risk you've taken in life?
What qualities make you fit for this role?

The interview was intirely based on the Google form. Asked for justifications/details for various questions from the form.

Although I was not asked any math questions, my friend was asked 5-6 mental math questions based on multiplication of 2 digit numbers. He was also asked to memorize a 10 digit number at the start of the interview which he was asked to recite after the interview ended.

Round 3: 2nd Interview

This round was conducted by the Head of Futures First Hyderabad office. After the basic introductions, he asked various questions, some new and some from the Google form, but expected different answers than those in the form. Asked some basic questions related to markets and personal strategies which I follow for taking positions in the market. Some questions related to What Futures First does was also asked. I was asked these questions only because I had prior experience of trading in the markets. Futures First do not expect you to have prior experience related to markets/trading.

Round 4: 3rd Interview

This round was taken by the Quant head of Hyderabad office. He started the discussion by asking me to walk him through my resume. Asked detailed questions about my previous experiences at PS-2. Since I had some experience in Quant, he asked further questions about that. Thereafter, he asked a couple of mental math questions, based on multiplication of decimal numbers.
This was the final round for the process.

Important Topics and Subtopics to Remember

Revise concepts related to Derivatives and basic DRM topics if possible.

Sources of Preparation

Aptitude workshop conducted by PU, DRM textbook.

Media.net

Mumbai/Bangalore

IT

Compensation Offered (CTC) : 1577690 PA

B.E. Electrical & Electronics Engineering

CGPA: 5.47

Recruitment Procedure

Note : It's Cross Campus

Round 0 :

(Online MCQ Test) Questions were from Operating System, Computer Networks, Algorithms, Data Structures, DBMS, General Aptitude . There is also an additional round where you need to SSH to a remote mission and perform some basic commands over the Command line Interfaces. Many people didn't even gave it a try, I done it somewhat partially.

>>>>Around 25/30 people were able to clear this round.

Round 1:

This round was a 3-4 hour offline socket-programming test. They gave one problem consisting of 5 sub questions. A URL was provided which contained all the information about the problem statement and FAQs. So basically we need to write client Server model in our machine and show them how it is working, first two were simple tasks all you need to do is to open a port(of your Choice to allow Requests) as server and being a client request some data and fetch it. Third Task is the Key where you need to Develop a Load Balancer Model, within your Client-Server Program, if you are able code it at least to some extent where the primary concept of the load Balancer is visible in your code it'll do the Job. be aware of questions on what components you use, they'll try to dig deep some times, for example if they ask you how can you handle if multiple clients try to communicate with the Server?.. Creating a thread for each client server connection will be an acceptable answer. I did this round using Java, but I knew using python I could have done it better. I don't want to experiment at that point.

>>>>Only 3 people were able to clear this round.

Round 2:

It was a technical interview and lasted for around 1hr+. It started with the all-time favorite question : 'Tell me about yourself'. Then asked about project experience based on my resume. Then moved on to Networks and OS. So be sure you to only mention projects which you have good grasp. Some of the questions are like this:

1. What happens when you type 'google.com' in a web browser.(Important) be sure to learn each step

(Status Codes, DNS, protocols(http/https) etc..)



2. Explain TCP and UDP and differentiate between the two. Why is UDP unreliable and TCP reliable and where can we use UDP?(TCP|UDP be very Clear)

3. Asynchronous vs Synchronous

4. Registers MUP (came up as I'm from EEE)

5. How Garbage Collector Works? (as in My Skillset Java was there)

6. Few Questions about JVM (as in My Skillset Java was there)

7. Threads and dead Lock (for like 15 mins, make sure you prepare these topics well in OS)

>>>>Only I was able to clear this round.

Round 3:

This was more like a System Design Round and lasted for around 1hr 15mins, started off slowly with intros of the two interviewers then mine. After that they've asked me to design Instagram, with the following features:

- 1) Upload/View Ones Posts (on his profile page)
- 2) Should be able to View Others posts (in his Home Page)
- 3) Few other features I cannot remember

P.S: Try to ask questions in order to breakdown the problem into small parts and deciding the resources you going to use always think about scalability and reliability.

It's a quite popular question when it comes to System Design, You can find it over Internet so not writing my answer here..

>>>HR Told me that there'll be one more round with DevOps Manager(not sure) after this.

Round 4:

This round is like HR +Tech, initial 10/15 min is just him explaining about the work area and required skillset for the SRE role. The only question we discussed for the next 20/30 mins was this: There is a Server having 100PetaByte File and i have 1000 Servers, now these 1000 servers have unlimited bandwidth available among them but only a 10Gbps fiber cable is available from Main Server to these servers, what way we can transfer that 100Peta Byte File to all these 1000 Servers in minimum time possible.

Answer : go through P2P Model Transfer for torrent in internet, you'll be able to answer this question. I personally felt i did really good for this one, as I've given some real life examples where such cases happen and how they are done. He seemed to be satisfied.

>>>HR Told me that there'll be one more round with all the people I've been interviewed till now after this.

Round 5:

So all the people who interviewed me till then were there and gave their feedback on my performance, suggested areas where i could have improved and pointed out where've done well and said, I got accepted. It only lasted for 10-15 mins.

Round 0: happened long before (be sure to have good knowledge on Operating System, Computer Networks, Algorithms, Data Structures, DBMS, General Aptitude)



Round 1 to Round 4 : Happened on Single Day (Total of 7-8hrs in a day!!), Learn to be patient and persistent.

Round 5: You are here means 99.99% you are IN.

All the Best Guys.

Important Topics and Subtopics to Remember

DSA, Operating Systems, Networking, Good Projects, Knowledge Cloud Computing

Sources of Preparation

Coding Ninjas, NPTEL, Youtube

Additional comments

Never quit because the test/question seems difficult, They'll test your patience and persistence for sure.



Media.net

Mumbai/Bangalore

Product Management

Compensation Offered (CTC) : 2992000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7

Recruitment Procedure

Round 1: Aptitude Test - This was a pretty standardized test on HackerRank with around 30-40 questions in 45 minutes. The questions were more or less similar to other aptitude tests. They included topics like puzzles, time and work, probability, and stats, among others.

Round 2: After the first round, five people were selected from the Goa campus for the first interview.

My interview was taken by a PM-I and went on for almost an hour, slightly more than the assigned time of 40 minutes. It took off with some casual conversation about BITS and the pandemic. This was followed by a résumé rundown by the interviewer. We dwelled a bit deeper into the intricacies of my experience at InMobi (PS-II) and my PoR as the Chief Coordinator and Events Head of Quark'20. Since this was a product interview, he followed up with a case cooked up around my experience at InMobi. The case was highly detailed as both media.net and InMobi are AdTech companies, and many terminologies and systems overlap. The interview concluded with a few puzzles and a standard guesstimate (Number of Traffic Signals in your City).

Round 3: This took place later in the evening on the same day as Round 2.

This was taken by a PM-II and again went on for like 75-90 minutes. This interview had a more immediate start compared to the last one. This started off with a question around fake news detection in the Economic Times app. He asked me to cite ten parameters that I would consider while looking into fake news. This was followed by a question regarding customer dashboards and what all metrics you would consider showing to the client. I was asked to map out a wireframe for this feature. The next question was more like a product decoding exercise of Amazon Prime. He took up different aspects of the product and asked detailed questions about each of them. We even touched upon the recommendation system algorithms and what additional parameters could be added to improve that. The interview culminated with a discussion around privacy and IDFA changes.

Important Topics and Subtopics to Remember

- Thoroughly research about the industry your PS was in.
- Geographic Guesstimates (over Tech ones)





-
- Usually they ask for a product from your side. Hence, research 2-3 products intricately.
 - Basic Prob. and Stats.

Sources of Preparation

Guesstimates:

Product Manager Interview
DU Guesstimate Booklet

Product Cases and Tech Understanding:

Preparing for Product Interviews (Advaith Sridhar and Akash Ramdas)
Decode and Conquer (Lewis Lin)
Product Manager Interview (Lewis Lin)
Cracking the PM Interview (Jackie Bavaro and Gayle Laakmann McDowell)
Exponent
Swipe to Unlock (Aditya Agashe)

Product and Growth Thinking:

Hacking Growth (Sean Ellis)
Hooked (Nir Eyal)
Zero to One (Peter Thiel)

Media.net

Mumbai/Bangalore

Product Management

Compensation Offered (CTC) : 2992000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.17

Recruitment Procedure

Round 1: Aptitude Test:

A 90 minutes MCQ based test which comprised of questions ranging from data interpretation & logical reasoning to quantitative numericals

Round 2: Interview 1:

A 30 minutes interview which consisted of guesstimates, a qualitative case study and a rapid fire on basic Excel features

Round 3: Final Interview:

An hour long comprehensive session which included questions on SQL commands, a product based case study question and mathematical puzzles

Important Topics and Subtopics to Remember

Aptitude questions having a pattern similar to the CAT exam, Case Study & Guesstimates, Interview Puzzles and Basic SQL commands

Sources of Preparation

PU Aptitude Tests, IITB's Case Interviews Cracked, Puzzles and SQL commands can be Googled and explored on

Meesho

Bengaluru

IT

Compensation Offered (CTC) : 2500000 PA

B.E. Computer Science, M.Sc.Economics

CGPA: 8.64

Recruitment Procedure

Round 1: online coding test

3 coding questions + MCQs on CS fundamentals. 2 coding questions were easy- medium and the last one was based on DP (Hard: A bit complex variation of standard questions)

Round 2: Technical Interview 1

I was asked two questions during this round. The first one was a standard hashmap question. I was able to solve this within 15 mins and then the interviewer gave the next problem which was a modification of 0/1 Knapsack. I was done with these questions within 30-35 mins and then I asked the interviewer a lot of questions and he seemed happy.

Round 3: Technical Interview 2

This round was a deep dive into my resume. The interviewer with one of my recent internship and asked in depth about the technologies I used and how to optimize the DB design and questions related to the prior internships. Then he moved on to the CS fundamentals and asked questions related to Indexing, types of indices in DB, caching, caching algorithms etc. This round lasted 45 minutes after which I asked him questions for around 15-20 minutes.

I was selected for the final HR round.

Round 4: HR interview

This round was more of a formality than an interview. It was a 10 minute casual talk about the company. The interviewer asked me what do I know about the company and later gave me more information about Meesho. This round was pretty chill.

My advice is to remain confident throughout the interview and give an honest answer. If you don't know something, it's better to tell them that rather than making up something.

PS: I am a CS student but I was really bad at DSA and didn't pay much attention during the course. Initially, I struggled a lot but 3-4 months before the placement season, I started practicing questions on Leetcode seriously. Anyone can crack the interviews, it depends on how seriously you prepare for them.



Important Topics and Subtopics to Remember

For CS people: DSA, DBMS, OS, OOP

For non CS people, they may not ask OS and DBMS.

Sources of Preparation

For DSA, I believe Leetcode is the best resource.

For other subjects, refer GFG for quick revision and you may google top interview questions for each subject.

Finally, you may be really good at coding and theory but that doesn't guarantee an offer. Giving mock interviews is the key. I gave lot of mock interviews on Pramp.

Additional comments

Make sure you know the basics of each subject and in depth knowledge of whatever you have written on your resume

Fiorano Software

Bengaluru

IT

Compensation Offered (CTC) : 9 LPA

**B.E. Electronics & Instrumentation Engineering,
M.Sc.Biological Sciences**

CGPA: 7.1

Recruitment Procedure

Round 1: Aptitude + Computer Science MCQs (90 minutes)

It had 3 sections comprising 20 questions each. First section had Logical Reasoning and Quant Questions. Second Section questions based on Data Structures and Algorithms. Third Section was language based and there was an option of either C or Java

Round 2: Technical Interview

The interview comprised questions on Object Oriented Programming concepts and questions based on basic Data Structures and Algorithms.

Round 3: Technical Interview

The interview was wholly based on Data Structures and Algorithms namely Arrays, Linked Lists, Trees, Stacks and Queues. There were around 7 questions asked on these topics.

Important Topics and Subtopics to Remember

Data Structures and Algorithms, Object Oriented Programming.

Sources of Preparation

Geeksforgeeks, InterviewBit, Leetcode .

Indus Insights

Gurugram

Consulting

Compensation Offered (CTC) : 1350000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 6.6

Recruitment Procedure

Round 1: Aptitude Test

Very simple, basic aptitude questions. There was limited time to attempt quite a few questions but overall it wasn't very difficult. The Apti training by PU was quite helpful and sufficient.

Round 2: Guesstimate

Problem Statement: Estimate the monthly revenue of a YouTuber.

Vague-ish question. It was clear they were never looking for the accurate final answer as the interview never came to that part. They tested my logical flow and understanding how the industry might work, how well I could segment my problem and move logically to the next step of analysis.

Round 3: Case Study

Problem Statement: Your client is an Airlines Owner. Should he start charging its passengers an extra fee for their check-in luggage?

Preliminary questions came in quite handy. Again, they were not looking for the correct answer, but only testing that I reach the point of identifying and asking the right questions and using the correct metrics to reach the end goal for the client. They needed me to arrive at a point where I asked the relevant question, after which a very basic calculation was required (no calculator allowed) to reach the final answer.

Round 3: HR and Resume Round

Asked me to go over my entire resume and then tell the interviewer about 2-3 of my weaknesses. It was a friendly conversation and was mostly about seeing if I was a good culture fit for the company.

Important Topics and Subtopics to Remember

Prepare Case Studies extremely well

Sources of Preparation

Recommended books and LOTS of practice

Indus Insights

Consulting

Gurugram

Compensation Offered (CTC) : 1350000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 7.65

Recruitment Procedure

The recruitment process was made up of 5 rounds out of which 4 of them had elimination while the 5th one was a buddy session to help us prepare for the 3 rounds of interviews.

Round 1 - Written Test + Guesstimate

Written Test comprised of 3 sections - Problem Solving, Data Interpretation and Critical Reasoning. Problems Solving typically contains questions on profit&loss, percentages, Time and work, time speed distance.

Data Interpretation has questions on different types of graphs.

Critical Reasoning is made up of a bit tricky questions wherein you need to spend a lot of time going through each statement and each option

Every section has a different but fixed time limit and you can choose the order in which you want to attempt the section. Note that they have an overall marks cutoff as well as a sectional cut-off so make sure you practice aptitude questions well.

Guesstimate - We had to guesstimate the number of black Honda cars that would be serviced in Delhi every year. We had to type in our solution and also highlight the final answer. There were 25 minutes given for this section. As always in any guesstimate they are interested in your approach and not the final answer. So always follow MECE principle, be as exhaustive as possible and pen down each and every assumption or estimate you make.

Indus Insights has a practice test available online so make sure you attempt that before your actual aptitude test.

Link for the test - <https://www.quiz-maker.com/QMTTANI#>

13 students from Goa and around 45 from all 3 campuses were shortlisted from Round 1.

Round 2 - Buddy Round

There was no elimination in this round. Associates already working with Indus Insights(mostly BITSians) solve a sample case and sample guesstimate with you to boost your prep and clarify any doubts that you may have about the upcoming interview procedure.

Round 3 - Guesstimate Interview

Guesstimate Interview lasted for about 25-30 minutes. The guesstimate question was very unconventional and again as always your approach is more important than the final answer. I had to guesstimate the amount of hand sanitizer used in an hospital every year. Always confirm your assumptions and estimations with the interviewer as this keeps the interview lively, interactive and also if the interviewer wants you to ignore any part of the solution then you'll find out about it then and there. Be honest with your interviewer in case you make any calculation mistake. Out of the 13 around 5-6 students were shortlisted from this round.

Round 4 - Case Study

Case interview lasted for around 40-45 minutes. Since Indus Insights works with clients in the BFSI domain, read up a bit on the simple jargons and terms used in the industry. It is okay to not know about this but if you do then it gives you brownie points. The crux of the case given to me was to find out ways to ensure people pay back their credit card dues on time. Initially I did not get any numbers since he wanted to check my approach and I went about the case qualitatively. Later he provided me with the numbers and I had to analyse them quickly to choose the step forward. Follow MECE while going about the case, do not miss your clarifying questions and again discuss your assumptions before going ahead with them.

Out of the 5-6 students 3 were shortlisted from this round.

Round 5 - Behavioural Interview

This interview lasted for around 30 minutes and was taken by one of the partners at Indus. It started with a quick introduction about myself, then he asked me why Indus Insights and why consulting. He grilled me a lot on my weaknesses since I initially tried telling a few strengths subtly disguised as weaknesses. Trust me that does not work and within a minute he told me to tell about my genuine weaknesses. While answering about weaknesses, structure your answer in the following way - First tell your weakness then immediately back it up by how you have improved or are improving it. Always be ready to answer questions about plans for higher studies(He asked me out of nowhere what my CAT score was). While answering such questions emphasize that you want to work for the next 2-3 years and higher studies aren't on your mind right now.

Out of the 3 students shortlisted 2 of us got the offer.

Important Topics and Subtopics to Remember

A good know of your Finance Minor courses help but it isn't mandatory.

Sources of Preparation

Practice cases from case interviews cracked first and then Day 1.0 with a group of 3-4 friends. Go through the videos uploaded by Victor Cheng for case interview preparation. Practice as many guesstimates as you can(since they don't require a partner) from the above mentioned books or you'll find a lot of questions online as well.

Be ready for atleast the following HR questions - 1) Tell me about yourself. 2) Why non-core or why xyz domain? 3) Why not core? 4) 3-4 strengths 5) 4-5 weaknesses



Practice these HR questions by doing mock interviews with your friends

Apti Prep-

Attend the seminar of Mr. Guru that PU keeps for aptitude preparation without fail. He provides a lot of insights and shortcuts for apti questions. Do not miss even a single practice or mock test that PU keeps since it helps you to understand your weaknesses.

Blog - <https://cat100percentile.com/quant-posts/>

Refer to this blog in case you have any doubts in the topics of apti

Additional comments

Apti prep is the most important part of your prep so don't ignore that. More the number of aptis you clear more the number of interviews you'll get. Do as many mock interviews as possible with your friends. Get your resumes vetted from a many seniors as possible.



Oracle Corporation

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 9.11

Recruitment Procedure

Round 0: Online Round (~2hrs)

Consisted of a lot of questions based on mental ability, logical reasoning and programming. Most of the programming questions were based on Trees (Binary Trees, BSTs and AVL Trees in particular)

Round 1: Technical Interview (~1hr)

Started off with DSA

Q1: Given two rectangles, find whether the two figures intersect and if they do find the rectangle of intersection

Q2: Given a histogram, find the amount of water that can be trapped in it

Q3: Given an array of integers, return the list of numbers occurring more than once

Logical Puzzle

Given 2 hourglasses, one which lasts for 4 min and other which lasts for 7, how can we measure 9 min

SQL

Asked the outputs of a few basic SQL queries

Round 2: Technical Interview (~1hr)

Asked language preference

How to do I/O for files/databases in language of your choice

How to do error handling

Polymorphism: Run-time v/s Compile-time

Quick Sort v/s Merge Sort (which one to use, better average complexity, better space complexity)

Asked about the ML project I did in my internship

Gave a real life problem and asked how to go about feature selection and feature processing



How to decide whether we should use an ML model or a neural network

Round 3: Managerial Round (~30 min)

Asked about goals and passion

Asked about hobbies/interests

Where do you see yourself after 5 years

Round 4: HR Round (~5 min)

Asked about a project from the resume

Took my location preference

Important Topics and Subtopics to Remember

DSA, OOP, DBMS, OS

Sources of Preparation

Programming Practice: LeetCode, InterviewBit

Interview Experience: GeeksForGeeks

Additional comments

Logic Puzzles, SQL, I/O from files/database in your language

Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 7.4

Recruitment Procedure

Round 1: Technical interview:

- 1) Asked about basic oop concepts, giving examples. Some more oop questions followed.
- 2) Asked me about the stages of compilation
- 3) Asked me about static variables and static functions. Try to be well versed with this topic.
- 4) Asked me some questions related to error handling: try, catch and finally block.
- 5) Asked me to write a program to return the max out of two numbers without using comparisons or arithmetic operators.

Round 2: Technical interview:

- 1) What are your short term and long term goals.
- 2) Basic oop concepts with examples. Then asked me write a basic program showing inheritance.
- 3) Static keyword again
- 4) How do virtual functions work behind the scenes (vptr and vtable)
- 5) What is a primary key
- 6) Why normalization
- 7) Asked me to write a program to sort an array xD
- 8) Puzzle: You are given three boxes, one with just apples, one with just oranges, and one with both. Their labels are misplaced. How many times do you need to pick out fruits from the boxes to correctly place the labels (ans: 1)

Round 3: Technical interview

- 1) Why do you use C++?
- 2) What is your favourite project? Asked me to explain that. Also asked me questions like why were you interested in this project, what problem does this solve.
- 3) If there's a live system with clients using it, how do you push an update without any downtime?
- 4) If one particular user faces an issue, but not the others, how do you solve it? How do you ensure that the user can continue using the system in the meantime?

Important Topics and Subtopics to Remember



OOP
DBMS
OS

Sources of Preparation

Interviewbit, geeksforgeeks, YouTube videos for theory

Additional comments

Try to cover the basics of all the subjects. Do oop in depth. Make sure you know everything you've mentioned in your resume.

Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 9.44

Recruitment Procedure

Online Test- Difficult level was Medium. Exhaustive set of mcq questions were asked from Math, Verbal, Reasoning and Binary Tree, OS and DBMS.

Round 1: one question on using arrays and another on design - given a relational database what is the most appropriate data structure to represent a hierarchical data and how would you construct that. Apart from that some basic questions were asked on OOP - fundamental terminologies, memory usage between final and static variables, combinations etc.

Round 2: Here the interviewer again asked a few OOP based questions. Thereafter he asked me to code Quick sort and give all the examples such that all the edge cases were covered and one could prove the best, average and worst case scenario. Also, the interviewer was very critical about how I was writing my code - indentation, proper documentation of steps and variable/function naming. Apart from that he also asked a puzzle to multiply two numbers without using the multiplication, addition operator or using any recursion/iteration. I was able to find a way around to it and he seemed quite impressed after this.

Final Round: General resume based discussion and one question on TCP / server timeout.

Important Topics and Subtopics to Remember

DSA > OOP > DBMS

Sources of Preparation

Leetcode, OOP Notes

Oracle Corporation

Bangalore/Hyderabad/Noida

IT

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 8.27

Recruitment Procedure

Round 1: Online Test

Oracle has its own testing platform. A variety of topics were covered in the approx. 2 hr test including CS concepts, mathematical, logical, reasoning aptitude, and English. No coding questions, though there were many questions related to understanding given code (linked lists, AVL trees, BST etc.).

Round 2: Technical Interview In my case, he asked two questions. First one was given an image of 2500*2500 pixels and 5000 colors, compress it to 16 colors. The solution he wanted involved taking color frequency, sorting it and mapping each pixel color to one of the top 16 colors.

Second one was to write a code for finding array sum and to explain how it would be possible to improve it using multithreading.

Round 3: Technical Interview Two questions. First was to add two numbers represented in linked list form (each digit in separate node) and to return the sum linked list.

Second question: Given an array of strings find the longest common prefix string.

Round 4: Technical + HR

One DSA question: Given an array of integers, sort it such that negative and positive integers alternate one after the other, maintaining original order in input array (append the remaining numbers after running out of either -ve or +ve integers).

Eg: Input = [1,2,-5,4,3,-6,-7,9]. Output = [-5,1,-6,2,-7,4,3,9].

One Linux question : How to search for occurrences of a particular string (eg: "abc") in all the files with .log extension within a folder (and all its subfolders).

Answer: `grep -r "abc" *.log`

HR : Asked me about my summer internship, questions on why we should hire you etc.

Important Topics and Subtopics to Remember

DSA, OS basics. Linux programming basics (in my case) and some were asked simple questions related to Networks.

Sources of Preparation

Geeksforgeeks, Interviewbit, Leetcode

Oracle Corporation

Bangalore/Hyderabad/Noida

IT

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science, M.Sc.Physics

CGPA: 9.1

Recruitment Procedure

Round 1: Technical round

First of all the interviewer asked me to explain in detail any one project whichever is my favorite. He then asked a very simple linked list based question.

Ques: Given two numbers in the form of linked list (can be of different lengths) add those two numbers to form a new linked list containing their sum.

The interviewer specifically asked me to write a pseudo code first, and then implement it along with explanation of each line. Codeshare platform was used for online compilation and he gave me 3-4 test-cases to test my algorithm.

Round 2: Technical round

This round was very unconventional, the interviewer held a senior position and was working with Oracle for 20+years. Questions were very conceptual and from various topics including OOP, Networks, Database and POPL (this was a surprise). Few questions that I remember are:

Ques:

- 1.) Can you include two header files together in C/C++? (Hint: ifndef)
- 2.) What's the difference between C & Java? Which is favourable for OOP and why?
- 3.) Situation : Let's suppose Oracle's software is running on a customer's device, but somehow it crashes/malfunctions, how do you plan to fix it? You don't have access to the machine. (Hint: Whenever a program crashes the application sends the process details to the application provider, which later can be used to diagnose and rectify the faulty code)
- 4.) What is '#include'? (Ans: preprocessor directive)
- 5.) If Oracle wants to add one new feature in mobile phones, what would you suggest?

Round 3: Technical round

The interviewer was pretty chill, he asked me how were my first two rounds and talked about my projects for 10 minutes. He then mentioned that this interview can't go more than 30 minutes so he'll give me a coding question and I've to implement it in remaining 20 minutes (to see how you work under pressure).

Ques: Given an array containing positive and negative numbers, create a new array having alternate positive and negative numbers (order maintained). If there are unequal +,- numbers, then append the

remaining numbers at the end. (Hint: 2 pointer method).

Due to time constraints I didn't have my HR round.

Important Topics and Subtopics to Remember

DSA : Sorting techniques, Searching algorithms, Linked List, Binary Tree, Graph, DP (I would suggest this order)

OOP : 4 principles of OOP, Abstraction v/s Encapsulation, C vs JAVA, singleton class

DBMS : Normalization, Joins, query

Networks : Application layer & routing algorithms

Sources of Preparation

Linked List : <https://www.geeksforgeeks.org/top-20-linked-list-interview-question/> (more than enough)

Binary Tree : <https://leetcode.com/tag/tree/> (At-least 50 questions)

DP & Graph : Interviewbit

DBMS : <https://www.studytonight.com/dbms/joining-in-sql.php>

Additional comments

Don't be spontaneous about projects (and other common questions). Try to remember a scripted version of these questions and recite for yourself during preparation.



Oracle Corporation

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 9.07

Recruitment Procedure

Round 1 : Online Test

This includes MCQs of DSA, OS, Logic and English. There is no direct coding asked in this round, and most DSA questions are about what the given function does or what the output is. Basic concepts and minor details are tested.

Round 2: Technical Interviews

This round was based on my resume and profile. My first interview was on my understanding of C++ as I mentioned that it is my favorite language. PoPL and OOP concepts are very important for this round. I was also asked to write a program to read a C file one character at a time. This was compiled and checked if it works correctly.

As my profile majorly had ML, I was asked questions regarding that in my second round. They were pretty simple in my case, but it depends on the interviewer.

You won't be asked questions from areas you're not comfortable in.

Important Topics and Subtopics to Remember

DSA, OOP, PoPL, OS

Sources of Preparation

DSA: geeksforgeeks, interviewbit

OOP: geeksforgeeks, course notes

PoPL concepts: geeksforgeeks, notes

OS: Course lectures, assignments



Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 7.98

Recruitment Procedure

Round 1: Technical Interview

Interviewer asked me to write a program to manipulate a linked list in various ways. Allowed me to pick the language, I chose C++ . Looked to ensure that I was splitting different components of the program into different functions and I walked through each step of the code in terms of the logic carefully. The program didn't compile the first time due to a few errors, however by the end I was able to debug and then mostly sort them out. However, one part of the code was still not working properly, but the logic seemed correct, and the interview then ended with a couple questions on DBMS.

Round 2: Technical Interview

Interviewer asked me to write a simple program that can perform multithreading. Was not looking to run the program but just to see if I understood the logic of multithreading, so the syntax wasn't that important. I was able to do it satisfactorily and was also took moments to pause and loudly think about ways to optimise it, especially the thread syncing logic. Then we talked a bit about garbage collection and that was it.

Round 3: Technical/HR? (Not sure if this was HR or technical)

Interviewer asked me questions about where I saw myself in 5 years, what I wanted to do, etc.. but didn't really press me further on my answers. Interviewer then asked me some simplistic technical questions on DSA and OOP.

Important Topics and Subtopics to Remember

DSA

OOP (especially threading)

DBMS

Sources of Preparation



GeeksforGeeks
HackerEarth
Leetcode



Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 8.63

Recruitment Procedure

Note:

1. Interview mode is online. Joined Zoom call with breakout rooms named interview room-1 ,etc (fun fact: Zoom is deployed on oracle cloud infrastructure).
2. Thinking out loud is encouraged during the interviews.

Round 1-Technical Interview :-

Started with small talk. Discussed resume, asked to explain my projects. Couple of simple DSA questions were asked. i was asked some basic OOP concepts.

Round 2-Technical Interview :-

Discussed resume. I was asked about my interests in technology. He asked 'gcc' full form because I mentioned I like linux better than windows. He asked how could facebook, instagram serve so many users so smoothly(he expected answer based on os and networks concepts). Simple db query was asked. Finished of with couple of standard DSA question.

Round 3-Technical Interview :-

We started this round by solving couple of DSA questions. The questions were modified after solving to make new scenarios. We discussed about work culture, on-sight opportunities, covid impact on oracle products.

Important Topics and Subtopics to Remember

DSA, OS, OOPs, Computer Networks, DBMS in that order.

Sources of Preparation

InterviewBit, Leetcode for DSA. Class notes for OS, OOP, Networks, DBMS.

Oracle Corporation

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science, M.Sc.Economics

CGPA: 7.48

Recruitment Procedure

Round 1 (Tech)

Started with the question tell me about yourself. So this initial round expects tell me about your "tech works" if you are sitting in IT domain. When asked this I gave a basic introduction of myself and my interests in the tech domain. He asked me to talk about my internship which I had done parallel while in college started talking about my work ex at a startup where I had worked for 6 months providing every detail of my internship tech stack used, projects implemented etc. Contrary to what I assumed he was actually very interested my internship so I talked non-stop for 20 mins. He then asked me to code a connection to mongoDB which as I used as a part of my internship, as I had worked on it was on the tip of my fingers. He then asked me if I knew what and why we use OOP. Instead of spitting out the four properties I told him how I had organized a project by adhering to OOP principles and gained leverage of the coding paradigm. He then asked me to code up a banking system with different accounts and use OOP properties like polymorphism, inheritance. So I did it and what he was looking for was, I believe, that if I knew what was the practical use of runtime polymorphism and inheritance. So I coded accordingly to be more specific to that. He told me do in C++ I told I have never coded a single class in C++ and I might mess up syntax so I wrote a code with mixed syntax of Java and C++, he then told I was just looking for concepts. He then asked me a basic SQL query to find annual salary of employee given monthly salary also asked me to assume a DB with 2-3 tables and write a query for that.

So takeaway round 1, talk a lot and let them know that you like working with tech.

Round 2 (Tech)

Started with the same question, tell me about yourself. Again contrary to my presumption that they would throw me with random DSA questions, OS questions (I told them it was my interest). They asked me to go in depth in detail of one of my projects ie. Flipkart Grid Hackathon. I went from A to Z into the project minute tech details how I wrote the code what resources I used what models everything. Talked again for 20 mins. He then gave me a hypothetical machine learning case of recognizing hand digits and told me to start with the bare minimum tools and algorithms and build upto how CNN come in. I had done ML a lot so this was a breeze and I explained everything clearly why and what I would use. He then asked me if I knew CRUD properties of DBMS I said I dont remember the acronym he was shocked but I said I haven't been in touch lately and he said no problem. I felt stupid as it was kind of a basic thing but nonetheless as I said he was already much interested in my projects and work experience. So he said lets move you

forward. Also asked me random Goa stuff while uploading my info.
Again takeaway is talk a lot about your work, don't let them ask DSA questions show them you work good and not just practice questions off of a website.

Round 3 (Manager /Tech)

He asked he wants to know me as a person how I had contributed back (if I had) using the knowledge I had gathered. I told him some childhood things but the main point where he was really interested was I explained how I and a group of 3 others had restarted an organization (C.T.E) from scratch and where it is today, how we did it and how it helped the tech culture on campus and showed him CTE's website which luckily still has my pic as one of the original team heads. He was impressed I had done something in the college. Then he asked me about my project based on Memory_Subsystem I again went into details and talked a lot. He then said HR would see you next.

Takeaway again talk a lot about what you have done in clubs and depts in college, it helps.

Round 4 (HR)

She asked me basic intro and told to describe any team project I had worked on from a non-tech perspective ofcourse ie. how I carried out working/managing the team, so I did. She then asked me any questions, I was like no, already asked and talked a lot in the previous rounds. She asked me location pref and the done.

My all rounds finished in 2 hours and I don't even know how.

Important Topics and Subtopics to Remember

Work Experience matters, let them know beforehand what you like and how you are so they will judge you accordingly.

Sources of Preparation

Interviewbit, LeetCode, Work Experience

Additional comments

Work Experience matters have a strong resume if you cant mug up DSA.

Oracle Corporation

Bangalore/Hyderabad/Noida

IT

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 9.03

Recruitment Procedure

There were 4 rounds (all virtual due to the pandemic):

Round 1 (Test): This is a very lengthy test. The test is split into sections and each section has a decent number of questions with a time limit. The sections were: CS fundamentals, Math and Aptitude, English Proficiency and DSA, etc. Each section has only MCQ type questions.

This test may seem daunting but its not hard to clear. All you need to do is attempt as many questions as you can sincerely and guess tick the remaining ones when you have about 30s or so left for that section. If you have done well with the questions you attempted properly you should clear this round. This was the trend I observed in both the summer internship and full time process for oracle and should remain the same, but could be situational based on your batch's preparedness.

Round 2 (Interview): This round was simple. Very basic questions were asked on OOP, like inheritance, abstraction, definition of class and object, etc. Questions like "What command you would use to install python packages like numpy? (Ans: pip)" were also asked. Basic DSA questions like implementing stack and some sorting algorithm (you could choose any sorting algorithm to implement) were also asked.

Round 3 (Interview): This round was primarily focused on projects. Some questions were asked on projects which were not so hard. This round should not be hard to clear if you have a good grasp on the projects you have done. The better you present what you did, the better they gauge you as an experienced candidate. So try your best to be well versed with your projects such that it comes off smoothly when you try to explain them.

Round 4 (Interview): This round seemed like a Managerial/HR round. The person in this round asked me questions based on what I learnt from the previous panelists in the interview process for oracle so far and started firing in questions based on my interests in the technical field. I had told to the previous panelists that I had some interest in security so he asked me questions mainly on this. Luckily, I had some basic knowledge on cryptographic principles, so that helped. Many people had different experiences with this round so don't expect the same. Finally, questions like "What are your short term and long term goals?", "What are your plans for after this interview?", etc were asked.

There is generally another HR round as well, but this time there wasn't one.

Important Topics and Subtopics to Remember

As always, DSA is important. Along with that; OOP principles, OS concepts like multithreading, DBMS concepts and Network concepts were also asked to a lot of interviewees. Some were asked a system design question related to distributed systems as well.

Sources of Preparation

Geeks for geeks (gfg), interviewbit, leetcode, hackerrank, etc are very helpful. Try and go through the "previous interview experiences" compilation for oracle on gfg.

Additional comments

This interview process for oracle was very unique and different from the other companies I had given so far. It was much easier and less pressurizing as compared to previous years ones on campus or those examples on gfg. There was more emphasis on your projects and your interests rather than plain old DSA, which was not the case in previous years. So i would say, don't expect the same, it could be very different for you. Try and be as prepared as possible for different scenarios. Also try and have some idea (need not be fully concrete) on where your interests lie in computer science and also on how you can contribute to the company (this is general advice; not just for oracle but for any company you sit in). Try and portray these interests and keep the interviewer engaged as much as possible. Try and make him feel like he gained something out of the interview (even if he didn't :)) and had a great time interviewing you. He may proceed to ask you questions on your interests (or areas where you have told you can contribute to the company's growth) and if you do decently well here (need not be excellent either), you would automatically increase your chances.

Lastly, don't worry if you don't get through. It is harsh agreed, but there will still be so many opportunities ahead of you. Don't lose heart and keep working hard. :)

Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 7.65

Recruitment Procedure

Round 1: Online Test

It consisted of 4 sections:

- 1.Aptitude
- 2.OS
- 3.English
- 4.Core CS concepts

The questions were fairly easy with no negative marking in them, but solving them within the given time limit was the hard part.

Round 2: Technical Interview

The interview started with a basic introduction of myself. He later asked me to talk about one of my projects which I was the most passionate about. He later asked me to code a question based on arrays and followed by a few questions on OS.

Round 3: Technical Interview

The interviewer asked about my project in detail. Followed by some basic questions on OOP and OS.

Round 4: Technical Interview/HR

I was again asked to explain one of my projects. Was asked a couple of questions on Stacks and queues and OOP. Was asked a few questions about higher studies. I was also asked to solve a puzzle.

Important Topics and Subtopics to Remember

DSA, OOP, Core CS concepts(for the online test)

Sources of Preparation

I mainly used InterviewBit and Leetcode for problem solving.

For the aptitude part, the problem set provided by the PU should be enough

For revising OOP and DSA concepts I used geeksforgeeks



Additional comments

-Be ready to answer even the most basic of questions on your projects. Since I had mentioned a few of my electronics projects in my resume, I was asked fundamental questions like:

- Why do we need approximations in adders and multipliers (My project was based on approximations of adders and multipliers)
- He told me to explain the project in a way such that a non electronics person would completely understand it (I ended up sharing my screen and explained him via drawing block diagrams)
- Don't tell the interviewer that you plan to go for a higher education in the near future, one of the rounds might contain some HR type questions as well
- Be sure to ask relevant questions at the end of the interview



Oracle Corporation

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2801398 PA

B.E. Mechanical

CGPA: 8.5

Recruitment Procedure

Online Test:

Sections on Aptitude, Comprehension, Grammar, and CS fundamentals (mostly DSA, DBMS, OOP). Only multiple-choice questions.

Interview Experience

4 rounds on Zoom. Half an hour each.

Round 1:

Brief intro. Asked to write the code for Singleton, Multiple Inheritance in CPP. A brief discussion on each. Design an online payment system. Draw all required classes on Zoom Whiteboard. And give a suitable design for each class (Inheritance, pattern, etc.). Ended with a simple puzzle. You have 10 coconuts. How would you place them on 5 lines such that each line has 4 coconuts?

Round 2:

Brief intro. The generic "Why IT as a mechanical undergrad?" question. Then a discussion on one of my projects. Not too deep though. Describe the 4 main subtopics in OOP. Asked about virtual functions and their internal working (vtable, vptr, etc.). What data structure(s) would you use to design an N-Lift system for a mall. Deep discussion on this. Find the middle element of a Linked-List. First and Second Normal Form definition. How would you convert 1NF to 2NF? What sorting algorithm would perform best for an already sorted array? Another puzzle.

Round 3:

For me, this was mostly an HR round. It was taken by a person with 20 years of experience at Oracle. Generic questions. But overall, a nice discussion on his time at Oracle and company values, learning curve, etc.

Round 4:

Basic HR again. Asked about one of my projects, but from a non-technical standpoint. Asked about job location preference.

Important Topics and Subtopics to Remember

Strong OOP concepts (and OOD), DSA, Basic DBMS, and preparing your projects is an absolute must. I wasn't asked OS but still, must be done. Knowing a few design patterns would also be of benefit.



Sources of Preparation

DSA: GFG, InterviewBit, LeetCode

OS: GateSmashers on Youtube and GFG

DBMS: GateSmashers on Youtube and GFG

OOP: GFG and Last-Minute OOP Notes given by PU.

Topics like OOD, System Design: TechDummies on Youtube for SD + Grokking the object-oriented design interview.

Additional comments

You'll always be asked what language/topic/project you're comfortable with and then be asked questions. But still, make sure you prepare well for CS topics (mainly OOP, DBMS, OOP) other than DSA.

Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 7.15

Recruitment Procedure

Round 1: Technical Interview

The interviewer dived straight into technical questions as soon as the round began. He first asked me a few OOP concepts and basic memory layouts of programs and proceeded to ask a simple question on Linked Lists.

OOP Questions:-

1. Is Method Overloading Compile-Time or Run-Time Polymorphism
2. How do we decide which method to call if there is a same method signature for the base class and the derived class?
3. What is the difference between new() and malloc().
4. Does malloc() implicitly call new()?

Solution: All of these concepts are well covered in Geeks For Geeks. I couldn't answer one of these properly, but it was fine and he moved to the other questions. So it's important to realize that even if you don't know the answer to any of these questions immediately, there's no need to worry as long as you would be able to answer the others.

The question given for me to solve was exactly this:

<https://www.geeksforgeeks.org/nth-node-from-the-end-of-a-linked-list/>

The Question was ambiguous in the beginning so I made sure I had cleared it up.

Solution: I initially explained the brute-force approach which first finds the length of the list and then returns the kth node from the end. I then explained a solution that requires only a single pass through the linked list using two pointers. Both these solutions are detailed in GFG.

I was asked to type the pseudo-code in a code-sharing website.

Round 2: Technical Interview

This interview mainly dealt with my resume. The interviewer asked me a lot of questions about my project and my PS-I internship. I explained what I did in detail during my internship and explained the projects clearly. He had asked some basic questions regarding my project which I was able to answer clearly. He also asked whether I would be going for further studies to which I answered - No. I want to apply my technical skills to solve real-world problems and get a strong footing in the industry now.

After that, he asked me if I had any questions for him about the company. I asked a couple of questions regarding the team I would be working with and whether there would be flexibility to move within teams. He was quite impressed at the end of it.

Round 3: Technical Interview

The interviewer started the interview by asking about the languages I was the most comfortable with. When I replied C++, he asked about some interesting problems that I've solved using C++. It is important to note here that the interviewer did not mean any DSA problems that I solved using C++ but rather some real-world experience with the same. I proceeded to mention in great detail about a project I listed in my resume that required C++ and he seemed quite pleased.

He then proceeded to give me a Dynamic Programming Question which was exactly:

<https://www.geeksforgeeks.org/find-minimum-number-of-coins-that-make-a-change/>

He gave me a couple of minutes to understand the question and work out the approach in my book. I thought out my approach aloud as I did. I then proceeded to give a recursive solution to the problem after telling the interviewer my approach. He asked me to code the solution from scratch - accept inputs and display the output. I made sure I was thinking the process aloud every step along the way and was able to get the correct output and I was asked to calculate the time complexity. In the interest of time, I was not able to fully code the DP version of the solution but typed the basic DP state equation of the problem and he was fine with it.

After solving this in a limited time, he was quite impressed. The both of us then later talked in great length about the company and he honestly revealed some of the challenges he had faced while working in the company. I asked a lot of questions again and he seemed quite impressed.

He also asked me why Oracle? And I gave a response that aligned with the main work oracle does and how I find them interesting.

Round 4: HR Round

This was just a brief discussion with the recruiter about myself, why they should hire me, why Oracle, what are my strengths and weaknesses to which I gave honest, non-generic responses. She then asked me about my location preference and if I had any problems with the compensation.



The End.

Important Topics and Subtopics to Remember

1. Data Structures and Algorithms (You should be able to code data structures from scratch)
2. OOP
3. DBMS

Sources of Preparation

GeeksForGeeks, InterviewBit, LeetCode

Additional comments

Always be confident and articulate. Interviewers value your communication skills a lot. So make sure you get to practice giving a couple of interviews beforehand. Don't get disheartened if you get stuck on a problem. Explain your approach and keep working on it.

Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Computer Science

CGPA: 8.54

Recruitment Procedure

Round 1: Technical Interview

I was asked to "tell me about yourself". He was nice and inspiring to talk to and had a lot of experience. He started right with the projects after my intro. I listed 3 projects in Resume:

1) Sorting Visualizer

Here he asked about in-place sorting and stable sorting and examples of algorithms which are stable and why. Also asked to describe the project.

2) Bird and Bars Game in C++ windows Console

Asked to describe the project in short.

3) User Registration System

He was most interested in this one as Oracle is majorly a Database Company. He asked about my motivation for this project, how it works. I told him I used relational database and MySQL to store data. Then he got into security aspect. So I said I encrypted the password using MD5. He gave a situation where the login info goes over internet then how to protect it. I told about HTTPs protocol and SSL. Then he asked about OS concepts especially on describing paging and how OS does memory management.

Finally he gave a DSA question:

1) Given a stream of ages you have to tell the highest k ages after every new stream element comes in. I first tried to clarify the question, where I asked if repeated ages are also counted.

Then I gave the most basic solution approach and kept on optimising it. Finally got to using max-heap. Then we had discussion over how ages play a role as age can be at max 120 so a better solution could be to keep the count of ages seen until now. I noted that he was impressed by my optimizing approach towards problem solving and good questions to clarify the question first. Then he asked me to code it. This round lasted for 45 min.

Round 2: Technical Interview

Started with my intro. This was an open round where he could ask any kind of question general to CS. Like

what OS you prefer. I said linux. Then tell me about \$1,\$2 and what would the command `--- echo `date` ---` would print (note that they are backticks and ignore ---).

Then he got into Computer Networks as he worked in Cloud Computing. He gave question on finding number of host given the IP and subnet mask.

What is meant by CIDR?

Why do we have this idea of subnets to which I replied that we have organizations in a company so to keep them separate it could be a use case. He was satisfied by it.

He was also interested in my User Registration system project and asked almost the same questions as the previous one on security.

He also asked about how do you think Virtual Box hosts OS, meaning how are we able to run different OS using virtual Box.

Then he asked me if I have any questions.

This round lasted for 25 min.

Round 3: Technical + HR round

This was the most challenging round for me. He asked experiences from previous round. Then he asked about my fav. topic to which I replied OS. Then he got into why we use memory and asked for examples of programs where we don't require much memory. Asked questions like can computers of these times suffice with just 4 MB memory, where I think my answer was not that satisfying.

Then he asked me to describe the compilation process of a C++ file.

He asked about what are header files, where are they stored like how the compiler knows where to find them, what happens if we include same header file twice and how to stop that from happening to which I said use `#ifndef`.

Also asked about extern keyword.

So be prepared with POPL concepts.

Then he gave a question that suppose our computer is connected to a 1000 computers and we want memory and cpu utilization data from those computers then how can we do it efficiently. I first said makefile but that was not right. Then I thought of networking and said we could have a remote login and run commands on them. He was satisfied by this answer.

He asked me to give any real life example of Caching. To that I replied CDN's(Content Delivery networks) and Proxy Servers.

Asked about indexing in Databases, why we do it and what it is?

Finally he asked what role I am interested in and any question for him.

To which I asked about how I can excel at Oracle and I also asked about Volunteering works done by the company and how I could take part.

This round lasted for 20 min.

Advice : Do attend Pre-placement talk with genuine interest and note down what they say so that you can use this knowledge during interview especially in HR rounds. Also be prepared with most asked behavioral questions. Take a look at Amazon Behavioral questions for that.

Important Topics and Subtopics to Remember

Operating System

- Memory management , Synchronization and Scheduling are most imp.
- Do questions on when to use locks and finding synchronization problems in code

DBMS

- Normalization with examples, Indexing vs Hashing, Joins

OOP

- Abstraction, Encapsulation, Polymorphism, Inheritance with examples
- Singleton class and deep cloning
- a lot of such basics.
- gfg is the best source

CN

- a good understanding of subnets and security if possible
- prepare CN at last if you get time

It depends on interviewer also if he asks your favorite out of these 4(OOP,OS,DBMS,CN). So stay prepared and confident with atleast 2. For Non-CS its fine if you don't have that deep knowledge , so you guys focus most on OOP and DBMS.

Sources of Preparation

DSA:

- Do entire Interviewbit religiously and bookmark and note the good questions for revision.
- Must do interview problems section in GFG
- Leetcode monthly challenges in 2020 from May to July
- Leetcode top interview problems medium collection(if possible hard collection too)
(<https://leetcode.com/explore/interview/card/top-interview-questions-medium/>)

DBMS:

Last minute notes section on gfg and web search for examples related to them.

OS:

Biju Sir Slides. nothing else required

Additional comments

Do puzzles... not many just the most asked ones . You can find them on one google search. If possible , prepare for aptitude , just the most asked type questions. But remember these are nowhere close to the



importance which DSA, OS and OOP should get.

Also if possible, be familiar with system design of WhatsApp and Netflix because they are the most asked questions in System Design.

Be confident, calm and have a mindset to clear all rounds not just the coming one but at the same time don't expect too much from yourself as it will just build up pressure. Remember you can't solve every problem but show you don't give up!

All the Best:



Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

B.E. Electrical & Electronics Engineering, M.Sc.Physics

CGPA: 7.95

Recruitment Procedure

Round 0: Coding test:

Normal Oracle Coding Test: 2hr MCQ-type test with aptitude, reasoning, DSA, debugging and system design questions mixed together.

Round 1: Technical Interview: DSA/OOP

Interviewer was at a director level position at Oracle.

The interviewer introduced himself and asked me to give a short intro too. Then he asked which language I am comfortable with and shared a livecode link with problem statement written on it.

The first problem was essentially sorting of an array and I coded up MergeSort. Then I was asked to implement a data structure that functions like a stack. I wrote code for both of these but had trouble compiling one of them (don't remember which).

However the interviewer agreed that my logic was sound and he couldn't spot any bugs either. He said these things happen and asked if I was familiar with python concepts. Asked me basic questions about Python and OOP like:

1. What is the difference between lists and sets in python?
2. Difference between object and class?
3. Inheritance and Encapsulation etc.

Then the interviewer asked me if I had any questions: Asked him about his background and career flow. We discussed our motivation behind taking up Software Engineering etc.

After this I was put in a waiting room till the next round.

Round 2: Non-Coding Technical

Interviewer was a team manager at Oracle.

I was asked to introduce myself and how my previous round went. I replied that I think I did not do as well as I could and explained where I thought I had made mistakes.

Then the interviewer inquired about my background. Upon learning I studied Physics and EEE, he asked high-level EEE questions about transformers and optical fibers.

He asked me to pick any EEE course I liked. I said "Digital Image Processing." Then I was asked several technical questions relating to analysis of image and video data, such as different ways to get information from each, difference in methodologies used to analyze different types of media etc. Answered each in detail.

Round 3: Technical + General Discussion:

Interviewer was, again, a Director at Oracle.

I was asked my intro again, the interviewer made some small talk. He said that based on feedback my coding skill seemed subpar. Told him about my strengths, we discussed some technical aspects about core areas in CS, algorithms and then started with a coding question.

<https://leetcode.com/problems/make-the-string-great/>

I implemented a recursive solution first, then he asked for an optimized solution and I got it after he gave a hint. Explained the solution to him and was not asked to implement it in code.

Then he asked me to walk him through my resume, explained bunch of my projects. The interviewer felt my profile was geared towards a core-EEE role so he asked me preference between companies like Qualcomm vs Oracle. I explained why I wanted to work in software dev and the steps I had taken to prepare myself for SDE roles. Also stressed upon the algorithmic nature of my projects. He seemed convinced after this.

Then he asked me a small puzzle:

A regular clock has an hour and minute hand. At 12 midnight the hands are exactly aligned. When is the next time they will exactly align or overlap?

Solution: <http://puzzles.nigelcoldwell.co.uk/thirtyfive.htm>

I solved it correctly and we moved on to a general discussion.

He asked me if I had any questions for him: We talked about his career and Oracle in general. He gave me some long-term career advice as well. Finally I asked him for feedback to improve and he said he hinted he was happy with my performance.



I was then moved to a Zoom room with HR and they said that the process was done for the day.

Overall, the R0 test was a mess but the interview process was great. Interviewers made an effort to test my strengths rather than asking template questions. They also seemed interested in talking about their current work and upcoming opportunities at Oracle.

Important Topics and Subtopics to Remember

DSA, OOP

Sources of Preparation

Leetcode, Blind 75, GFG and PU bootcamp

Additional comments

Be confident about your strengths and acknowledge your weaknesses (sounds cheesy but it worked for me.) Try to have a conversation with the interviewers and be comfortable with your resume too. Might also help to practise some brainteasers but I don't think it is too important.

PayPal

Bangalore, Chennai and Hyderabad

IT

Compensation Offered (CTC) : 1320000 PA

B.E. Computer Science

CGPA: 8.22

Recruitment Procedure

Round 1: Coding Test

This was a fairly easy round, 2 questions were asked and we had 2 hrs to solve the questions. First question was, given a number n , find integral pairs of x, y such that $1/x + 1/y = 1/n!$. This question was based on finding divisors using sieve. Second question was a simple BFS question, given a knight on chess board find whether it can reach to a destination cell or not.

Round 2: Technical Interview 1

In this round the interviewer asked some introductory questions about me first and some projects from my resume. Then we moved to solving one question. The question was given an array and a number x , you need to count the number of subarrays in which x is the maximum. For example, in the array $[4, 1, 2, 3, 1, 5]$ and $x=3$, the subarrays will be $\{[1, 2, 3], [1, 2, 3, 1], [2, 3], [2, 3, 1], [3], [3, 1]\}$. Thus the count is 6. I gave a $O(n^2)$ approach, the interviewer was satisfied with this approach. So then we moved on to modify the question a bit to having multiple x values in the array. For example, array = $[4, 1, 2, 3, 1, 4, 1, 3]$, $x=3$. After scaling my $O(n^2)$ approach, I finally was asked to optimize it. I optimized the approach to use a two-pointer approach in $O(n)$ (Note this can be done with stacks as well).

Round 3: Technical Interview 2

This round was pretty similar to the last one. It started with introduction and then projects from my resume. Then we moved on to solving one question again. This time the question was from DP. The question was min jumps (pretty common question on leetcode, gfg etc). The question for those who don't know. You are given an array, arr and the i th element is the maximum jumps you can take from that index you need to find minimum jumps required to go from first to last index. For example, array = $[2, 3, 1, 4, 5]$ the answer is 2 in this array $0 \rightarrow 1 \rightarrow 4$.

Round 4: Managerial/Technical Interview

This round was not that technical. The interviewer was really nice. This round went for more than an hour for me. We started with my interests and work that i had done, all the projects and what was the whole process of working on the project. He asked questions in between that were a bit technical about the concepts of OS OOP etc, but no fancy stuff just basic questions to gauge understanding. He explained about the company, its vision, etc. We had good discussions on a lot of things.

PS: My resume was totally ML research-based, no summer intern. So if you are thinking that this is going to be in your way getting a job then you are probably wrong. This won't really matter, you just need to know what you have worked on and some knowledge about basic CS CDCs.

Important Topics and Subtopics to Remember

Written in order of importance:

DSA - Basically all the data structures taught in the DSA course and all the common algorithmic techniques.

OOP - Know all the 4 basic concepts really well. Prepare OOP concepts in your preferred language as well. For C++, virtual functions, multiple inheritance, etc. Make sure you understand how these work as well. For JAVA, interfaces and abstract classes, garbage collection, etc.

DBS - Know all the 1NF, 2NF, etc. Questions aren't asked to normalize a table but the interviewer might ask about the basic concepts so better be prepared. Transactions are not a must but good to know. Know basic SQL queries JOIN, COUNT, etc (For example - Oracle will explicitly ask to write SQL queries).

OS - Know the basic concepts, processes, and threads, concurrency, semaphores, and mutex, scheduling algos (Won't be asked but if the interviewer asks to explain any you should know at least the basic ones like FCFS, etc). [PS. Biju sir has taught this course really well so there was not much to study just basic revision was enough]

Networks - Know the basic layers and their devices (OSI model). TCP and its concepts (3-way handshake, etc).

Sources of Preparation

For DSA - interviewbit, gfg, leetcode (in no particular order)

For other topics a mix of Slides and gfg. Focus on understanding basic concepts rather than going for advanced ones.

Please see the past interview experiences on gfg as well (at least the recent ones) (Yes, they do help).

I had very little time (around 10 days) to prepare so most of my DSA wasn't thorough. So if you have time please try to solve as many problems as possible.

Additional comments

It is good to know answers to basic HR questions like strengths and weaknesses. Be very diplomatic about your answers to HR, they might catch anything and use it against you.

PayPal

IT

Bangalore, Chennai and Hyderabad

Compensation Offered (CTC) : 1320000 PA

B.E. Computer Science

CGPA: 8.55

Recruitment Procedure

Round 1: Technical Interview

The interviewer was very polite and helpful. She asked me about the projects I had done first, including detailed descriptions of exactly what I had done in those projects. This was followed by 3 DSA questions. The first question was finding the maximum difference between two numbers in an array for every index. I was able to give an $O(n^2)$ solution to this, but wasn't able to find the $O(n)$ solution for this problem. The second question was finding how many numbers were greater than each number in a given array. For example for an input array of [1,2,3,4,5] the answer would be [4,3,2,1,0]. It could be easily solved by traversing the array from the right. The third question was finding the first negative number in a given interval. For example for an interval size of 3 and an array [-3,-2,1,-5,3], the answer would be [-3,-2,-5,-5]. It could be solved by storing the positions of the negative numbers in a queue.

I was shortlisted for the next round.

Round 2: Technical Design Interview

This round I was not asked any DSA questions, but rather the interviewer focused on design questions. Since I had a lot of Machine Learning experience of my resume, I was asked to design a Movie Recommendation system using any machine learning algorithm, and code it from scratch. They don't generally want you to write perfect code here, pseudocode will do as long as you are able to explain what you have written. The second question was to identify which data structure would be best suited to represent a relationship between different people. The answer for this was graphs, and he asked me to write a simple program in any language to illustrate it.

I was shortlisted for the final round.

Round 3: HR Round

In this round there weren't any direct technical questions. However I was asked some questions based on my experience in ML, such as how I would design systems to handle traffic load in large cities. The



interviewer didn't want technical details, he just wanted to know my approach to the problem. Besides this he explained about the company and about the role.

This was the last round, and I received an offer on the next day.

Important Topics and Subtopics to Remember

DSA, OOP

Sources of Preparation

For interview questions, Leetcode has the best sources for questions on a company to company basis, so that's what that I did.

For the online test beforehand, things like interviewbit and geeksforgeeks are enough.

PayPal

IT

Bangalore, Chennai and Hyderabad

Compensation Offered (CTC) : 1320000 PA

B.E. Computer Science, M.Sc.Mathematics

CGPA: 8.3

Recruitment Procedure

Round 1: Technical Round

3 standard questions on DFS, Binary Search, Linked List. Then the interviewer moved to a few OOP questions - Abstraction, Polymorphism etc

Round 2: Technical Round

Ques1: Check if 2 strings are 1 edit distance apart.

<https://www.geeksforgeeks.org/check-if-two-given-strings-are-at-edit-distance-one/>

Ques2: Given a nested list, you need to build a function that will return the next element from the flattened list.

For example if the list is [1, [8,[6,7],5] , 10, 12 ,[6,7,9]], when you call your function get() will return the numbers 1,8,6,7... when it is called.

Already given class:

```
class NestedElement {  
    Boolean isInteger()  
    getInteger()  
  
    List<NestedElement> getList()  
}
```

My solution:

Needed get and has element functions

```
class flattenList {  
  
    deque<int> flattened_data; // initialize empty deque ,suppports push_back(), pop_front(), front()  
    methods  
    vector<nestedintegers> data;  
    int itr;  
    flattenList(vector<NestedElememnt> list ){  
        this.data = list;  
        this.itr = 0;  
    }  
}
```

```
}

vector<int> Completely_flatten(nestedElement)
{
    vector<int> ans // initialize empty vector of ints
    if(nestedElement.isinteger())
    {
        ans.append (nestedElement.getinteger())
        return ans;
    }
    for(NestedElement x in nestedElement.getList())
    {
        vector<int> temp_ans = Completely_flatten(x)
        for(int num : temp_ans)
            ans.append(num);
    }
    return ans;
}

get(){
    if(flattened_data is empty)
    {
        vector<int> temp_list;
        temp_list = Completely_flatten(data[itr])
        for (int ele : temp_list):
            flattened_data.append_back(elem)
        itr++;
    }
    int cur = flattened_data.front()
    flattened_data.pop_front();
    return cur
}

//return true if elements exists
hasElement(){
    if(itr == data.size() && flattened_data is empty)
        return false;
    return true;
}
}
```

Quest3: Minimize cost of painting N houses such that adjacent houses have different colors
i.e. Given N houses, and m colors, and a 2D grid cost such that cost[i][j] is the cost of painting house i with color j, find the minimum cost of painting the houses in minimum cost.

Approach:

$Dp[i][j] \rightarrow$ min cost of painting ith house with color j st no 2 colors have same color uptil now

$Dp[i][j] = \min(Dp[i-1][x] \text{ for all } x \neq j) + \text{cost}[i][j]$

Final ans = $\min(d[n-1][j] \text{ for all } j)$

Complete Solution:

```
int dp[n][m];
for(int i=0;i<n;i++)
{
    for(int j= 0;j<m;j++)
    {
        if(i==0)
        {
            dp[i][j] = cost[i][j];
            continue;
        }
        int mn_cost = MAX_INT;
        for(int k = 0;k<m;k++)
        {
            if(k==j)
                continue;
            mn = min(dp[i-1][k] , mn);
        }
        dp[i][j] = mn + cost[i][j];
    }
}
```

```
int ans = INT_MAX
for(int i=0;i<m;i++)
    ans = min(ans,dp[n-1][i])
return ans;
```

Round 3: Problem Solving round

This round was with a very senior engineering manager. First I was asked my intro, my previous internship project details etc in some detail.

Then he asked me a design kind of problem: Suppose we have to manage and time the traffic lights of the city, how should we go and time the lights such that we have minimum waiting time.

I first formulated the problem in terms of graph: intersection with traffic light on each node, and edges are



roads on which people travel. Then the discussion revolved around calculating the flow at each intersection, dividing the schedule into different times of the day, etc. The interviewer was focused on just the approach to the problem and not building any final solution.

Towards the end the discussion moved to more of an Introduction to the company, what does it does etc, and the interviewer's experience with the company.

Finally had a very short discussion with the HR about work location priority if I have any.

Important Topics and Subtopics to Remember

DSA, OOP

Sources of Preparation

<https://www.geeksforgeeks.org/object-oriented-programming-in-cpp/>

Pokarna Engineered Stone Ltd

Visakhapatnam

Chemical

Compensation Offered (CTC) : 600000 PA

B.E. Chemical

CGPA: 6.78

Recruitment Procedure

Round 1: Personal Interview:

The interviewer was the senior manager of the company himself. He would only probably come anytime this company comes from recruitment. He had a serious look and started asking questions on my resume. Since this is a leadership role he looked for a good understanding of my projects/hobbies/achievements and kept asking me about how my role in these was important and he took each point deeper and deeper.

Then he asked me to describe situations where I tried hard to achieve something and succeeded/failed and what kind of impact it made on me. He asked for two examples of each. I could not particularly remember two instances in each case so made up some stories then and there. Since they will not be verified, it doesn't really matter. The whole interview lasted for 1 hour and 45 minutes.

Round 2: Online Test:

They selected four of us from the interview. This was a nominal test. Questions asked are from class X chemistry. About 30 questions were asked and all of them were very easy. All four of us cleared this round.

Round 3: Interviews with all the R&D team of the company:

We had interviews with four people from R&D. All of them were similar to that of the first interview but shorter, only half an hour long. All of them asked the same questions and I gave the same answers.

Round 4: Interview with HR:

Asked about my family members and what each of them did and explained the entire JD and salary breakup.

Round 5: Interview with CEO:

This interview lasted about 20 minutes. The CEO was a cool guy. He asked me to introduce myself and why I chose this company and what did I like about the job (from what I understood about the job as of then).

Important Topics and Subtopics to Remember

Even if this company comes again, I don't think they will ask any technical questions as they are very desperate to recruit.

Just in case, prepare basics from important topics like Fluid Mech, Mass transfer, Heat transfer and Thermodynamics.

Prepare for some basic HR questions. Those were all they asked and they kept pressing on each point as we discussed.

Sources of Preparation

I prepared the basics of Fluid Mech, Thermo, Mass transfer and Heat transfer but they did not ask any technical questions.

I looked up answers to some questions asked in general HR interviews like "Describe your strengths/weaknesses", "Describe a situation where I exhibited my leadership skills", "Describe situations where you tried hard for something but failed and what did you learn from it", "How do you tackle subordinates who don't listen to you?"

It was like an interview for a leadership role. These are all the types of questions you can expect.

Additional comments

We were asked to do a corporate thesis (off-campus) in the same company the essential purpose of which is to make you do the actual job for half the pay in the name of a thesis.

We were also asked to sign a 3 year bond given the confidentiality aspects of the work involved.

This is a production plant which is not what we being a BITSian might feel comfortable working. You are the manager of an entire factory and are responsible for product development, productivity, breakdown and quality for the entire 24 hours of the day, even for things which happen in a shift you are not there in. So research about the factory atmosphere, work culture and plan carefully before applying. You may be hasty about applying for any and every job as very few companies may come for recruiting from Core Chemical, but do a quick background check about the company and then decide.

Pokarna Engineered Stone Ltd

Visakhapatnam

Chemical

Compensation Offered (CTC) : 600000 PA

B.E. Chemical

CGPA: 8.03

Recruitment Procedure

Round 1 - Technical interview: Interview with Sr. Manager of R&D. Basic questions about your leadership skills, teamwork skills, general fitness and personality. Asked to cite examples where I showed leadership skills, and team spirit. Detailed questions about projects and work experience.

Round 2 - Written test: Core chemical engineering questions, and logic/math questions. MCQ. Similar to gate preparation questions.

Round 3 - Interview with HR: Basic questions about yourself. Asked about how we would cross the inevitable language barrier.

Round 4,5 and 6: Interviews with the different managers of R&D: Asked detailed questions about the projects done, work experience. Asked basic interview questions like why do you want this job, why chemical engineering etc.

Important Topics and Subtopics to Remember

Heat transfer, fluid mechanics, Mass transfer 1, Transport Phenomena, Kinetics and Reactor Design, Material Science, Thermodynamics.

Sources of Preparation

Gate preparation books.

Additional comments

Read up about the company, and what quartz surfaces are. Understand how composite surfaces are made (not in detail).

Publicis Sapient

IT

Gurgaon/Delhi/Bangalore

Compensation Offered (CTC) : 1470000 PA

B.E. Electronics & Communication Engineering

CGPA: 7.24

Recruitment Procedure

Round 1 : Coding Test

2 Questions to be solved on HackerRank

Q1. Don't remember it exactly, but I think it was along the lines of, print the longest substring of String A which is a subsequence of String B

Q2. Given an array of integers, give minimum number of operations needed to make the array sorted (ascending or descending). An operation is changing a number at an index to any possible number we want

Round 2 : Domain Discussion - Technical Interview

I was first asked to give an intro about myself. Then, after some initial discussion based on the projects mentioned in my CV, the interviewer asked questions from various topics - Design Principles, OOP, OS, Networks, Web Development, DSA.

I was not very well prepared with Design Principles and being from ECE, not having the courses, I had little to no knowledge of OS and Networks. Rather than trying to make something up, I honestly told the interviewer what all I know from those topics, and that that was the limit of my knowledge in those subjects. But I answered everything well from the topics I knew. The questions were not very complex, but based on very fundamental concepts posed as tricky questions.

My PS II project was on Web Development, so we delved deeper into that. Since I had mentioned RDBMS and NOSQL in my CV, the interviewer asked some basic question about those as well.

Round 3 : Core Values - HR Interview

The interviewer started off by asking how my previous round went. This was a purely behavioural and personality based round. I was asked about learning mindset, 3 big failures and what I learned from them, situational questions on working as a team, having a difficult-to-deal-with colleague, deadline commitment vs quality, conflict resolving etc. The interviewer then asked me whether I contributed to open source projects / platforms, whether I wrote technical blogs, whether I took part in hackathons. The answer to all were no for me. So he asked why for each case. Then I was given a product designing challenge to come up with an innovative solution for a problem, and we delved deeper into that. Based off my experience and the interviewer's experience I think what they expected from me was a having a concrete idea of what I'm saying and why I believe that; honesty, commitment and passion to what I was suggesting; flexibility to adapt, but also retaining my uniqueness; knowing where to differentiate between what I wouldn't change (e.g. ethics) and what I would (e.g. approach to conflict



managements). The answers should have the idea of taking responsibility, accountability while being inclusive, respecting everyone's ideas and combining them to your own vision.

Important Topics and Subtopics to Remember

DSA, OOP, Basics of Web Development / OS / Networks / SDLC (They ask about all but as long as you have some basic idea of 1-2 topics, you're good to go)

Sources of Preparation

GeeksForGeeks, InterviewBit

Additional comments

They seemed to focus more on my approach and ability to communicate that effectively rather than the correct answer.

Publicis Sapient

IT

Gurgaon/Delhi/Bangalore

Compensation Offered (CTC) : 1470000 PA

B.E. Electronics & Communication Engineering

CGPA: 7.58

Recruitment Procedure

Round 1: Coding Test

2 DSA Questions

1. A standard DP question

2. Hard problem on stacks

11 students were shortlisted after this round.

Round 2: Technical Interview

The interviewer asked me about myself and my projects. He was impressed by a research project I had done related to underwater communications. Also he showed interest in the project from my PS based on Java.

He started to ask me standard OOP questions and asked me to relate it to my PS project. Next he went onto standard DBMS questions on normalization and OS questions.

Next he asked me some questions on Networks.

No questions on DSA was asked in the interview.

It was about 45 minutes.

Round 3: Core Values Interview

This round was taken by a person from technical background, so it was not exactly a HR interview, but somewhere between a technical and HR interview. He went deep within my projects and was impressed by it. He then asked my views on some real world digitization applications. Then he went onto some HR-type questions like what I want to achieve in 5 years.

It was about 30 minutes.

This entire process covered all the Core CS topics, so you need to be prepared with the standard questions in all these subjects.

Important Topics and Subtopics to Remember

DSA- DP, Stacks

OOP, DBMS, OS, Networks- Standard Interview Questions



Sources of Preparation

DSA- Demux

OOP, DBMS, OS, Networks- GFG, Last minute notes of all topics



Publicis Sapient

IT

Gurgaon/Delhi/Bangalore

Compensation Offered (CTC) : 1470000 PA

B.E. Computer Science

CGPA: 6.96

Recruitment Procedure

Round 1: Coding Test

It was a 2-hour coding test on Hackerrank, with 2 programming questions to solve. The questions were not easy.

The first one was based on a logic using priority queues. The second one was on DP.

I solved the first one partially and second one fully. I knew people who solved both fully didn't get selected. So it depends on your code, your logic, uniqueness and style of writing.

Round 2: Technical Interview

This was a 1-hour interview discussion on my resume and technical knowledge. It started off by discussing the projects and internship work. You should be able to explain every bit written, so don't go bluffing about. Then the discussion moved on testing my knowledge in Computer Science topics. I was asked questions on OOP (What is operator overloading, real life examples, etc), DBMS (SQL related questions, ACID properties, etc), CN (OSI model, What happens when you click a URL, etc), DSA (what sort of data structures can be used in real life scenarios, etc). In the end I was given a programming question to print a pattern (which I live coded in C++).

Round 3: Behavioural Assessment

This was 1-hour HR round where I was tested on my social and moral values. The questions were based on real world scenarios judging my personality overall.

Important Topics and Subtopics to Remember

DSA, OOP, DBMS, CN

Remember the basics of each and every topic.

Sources of Preparation



-
- 1.) GeeksforGeeks - Helped a lot in listing and revising topics.
 - 2.) Leetcode - Solving the most asked questions in interviews from leetcode gives you an upper hand.
 - 3.) DSA course theory and Lab Questions - BITS Goa DSA course.

Additional comments

Confidence is the key.

Qualcomm

Hyderabad, Bangalore, Noida, Chennai

Electronics

Compensation Offered (CTC) : 1150000 PA

B.E. Electrical & Electronics Engineering

CGPA: 9.28

Recruitment Procedure

Round 1 : online test

90 minutes total.

30 minutes Aptitude - General apti questions, paragraphs.

30 min Programming - C output, error, pointer questions.

30 min Digital - basic K maps related, FSMs, setup and hold time.

Round 2 : Technical interview 1

Question 1 : Create AND gate with a 2:1 mux.

Question 2 : You have a 32 bit register, find out if the number is divisible by 4

Question 3 : Which type of FSM will you use for overlapping pattern detector. Which type of encoding (one hot / gray/binary etc) for say, a 5 state FSM and why?

Q4 : make a multiplier with adders. How many bits do you need to store the result of product of two, 2 digit decimal nos.

Q5 : 3 single bit numbers and 3 operators - Add, subtract and multiply. Write equation for AND and OR gate.

Q6 : clock, input and output waveforms given, design system with flip flops and combinational logic to get desired output.

Q7 : Given array of n elements with unknown size n , find the n-4 the element. Hint - use 2 pointers.

Q : They asked me to rate myself in verilog on 10. (They expect lower than 3-4 for B.E students).

Aptitude question : given six matchsticks of same length, make 4 equilateral triangles.

G.K question : (after looking at my interests) - mention achievements of Prakash Padukone and Who is Syed Modi.

Round 3 - Technical interview 2

Q1 : State diagram for overlapping sequence detector for 1011. Both mealy and Moore

Q2 : Explain CMOS and draw symbol.

Q3 : Given a basic FIFO design with an empty and full flag, read and write port. Explain how you will verify



it.

Q4 : build mod 2, mod 4 counter using DFFs.

Q5 : make not gate out of nand gate without shorting both inputs.

Round 3 : HR interview

Introduce yourself

Why Qualcomm

Why Digital

Important Topics and Subtopics to Remember

Make sure you know DD properly. FSMs (be quick on those) , counters, basic combinational logic (mux, decoder, adder). Setup and hold time.

Sources of Preparation

DD and verilog - Morris Mano 4th edition or higher.

Basic FSM design questions - YouTube videos

STA - <http://www.vlsi-expert.com/p/static-timing-analysis.html?m=1>

Additional comments

Tell them if you don't know something you are asked. Qualcomm usually recruits M.E and they asked a few questions thinking I am an M.E student. Had to clear that.

Keep voicing out your approach, especially in an online interview because they can't see what you are doing on paper.

The G.K round as part of technical interview was surprising so read up about pioneers in the fields you state your interest in.

Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 1150000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.16

Recruitment Procedure

Round 1: Written Test (Online mode)

It was a 90 min test with three sections in it: Aptitude, C Programming and Digital/Communication. C Programming section had questions related to debugging, data structures, operating systems, searching/sorting algorithm, etc. These were very basic questions and did not require deep knowledge. For digital section, most of the questions were based on digital logic and you can expect some questions on digital VLSI design too.

Round 2: Technical Interview(1)

The interviewer was very friendly and started the discussion by asking questions on my past decisions, example: why electronics, why bits, etc. Then he proceeded towards the technical part and asked me some questions on digital logic. There were questions related to synthesis and simulation of verilog codes and the interview ended with some questions on storage devices. Lastly sir had also asked some managerial questions like, how do you expect your manager to be like, what are your weaknesses, etc. The interview lasted for about an hour.

Digital logic question:

1. 2-input exor gate using 2-1 mux
2. Check whether two 8-bit registers hold the same content using gates
3. How to fetch the first bit of a 8-bit shift register in the time of just 4 clock cycles (further STA questions based on the answer I had given)
4. Implement an asynchronous reset on a D-flip flop
5. How is pipeline implemented in hardware(further STA questions based on the answer I had given)
6. Verilog code for a 8-bit counter.
7. Sir had shared his screen with a question on 2 flip flop configuration and had asked me to check for any setup or hold violation.
8. Verilog testbench for verifying the working of the specified RAM storage.
9. Divide by 2 counter

There were questions related to transformation of Verilog program to an actual chip. These included, what is synthesis, simulation, netlist, etc

Round 3: Technical Interview(2)

This round lasted for about 35-45 min and had some industrial questions. Ma'am had asked me about the project I was working upon and its progress. As there was time limit to the interview, ma'am had given me the choice to talk about any one of the projects I had worked upon. Interview ended with some discussion on my hobbies.

Digital logic question:

1. What is race condition, explain using verilog program
2. SRAM working
3. MOSFET working

Digital VLSI question:

1. What is metastability, when does it occur, ways to avoid it, etc

Round 4: HR interview

This round was less of questions and more of discussion. Sir had given some information about Qualcomm and the work environment, etc.

Important Topics and Subtopics to Remember

Digital logic: Flip Flop, Race condition, frequency division, Verilog

Digital VLSI design: STA, Metastability, delay calculations

Knowledge of storage devices and chip design would help in the interviews.

Sources of Preparation

The text books and reference books for DD and ADVD are a must. Do practice for the written test using the material provided by the PU. There are a lot of sources online for interview and test preparations, please go through them.

Additional comments

If you are applying for Qualcomm, do practice and know some common questions on C Programming, mainly debugging(this is for written round). Not to get nervous is the most important thing. Try being as expressive as possible and also, keep a smile :)

Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 1150000 PA

B.E. Electronics & Communication Engineering

CGPA: 9.25

Recruitment Procedure

Round 1: Online Test - 90 mins

-Consisted of 3 sections, each of 30 mins each

-+1 for correct answer, -0.25 for wrong answer

-First section - aptitude questions, a lot of the questions coincided with what was done in the aptitude sessions taken by PU.

-Second section - questions of C Programming, basic questions regarding syntax, a few programming concepts. Also questions in which a code segment is given and we need to find out what the output will be.

-Third section - Could choose to take the test on one of the three - Digital, Communication or Software. I chose Digital. Basic questions on DD and Comparch were asked in this, mainly DD (Combinational and Sequential)

Round 2: Technical Interview (1 hour)

-First I was asked to introduce myself, as a formality. After that we jumped directly to the questions

-First I was asked about the project I did in my summer internship. We spent 5 mins on that.

-I was then asked the difference between Mealy and Moore State Machines.

-After that I was asked to design Mealy and Moore State Machines to make an overlapping sequence detector for sequence 1001.

-After this I was asked the difference between encoder and multiplexer.

-I was asked to draw the circuit of a 4-channel mux using logic gates.

-After this, since I had mentioned Verilog and SystemVerilog in my technical skills in the resume, I was asked questions on Verilog. These questions were mainly related to Verilog concepts and syntax. I was asked what is the difference between reg and wire (which I knew), and the difference between task and function in Verilog (which I didn't know). I was also asked about encapsulation and polymorphism, since SystemVerilog includes OOP concepts as well.

-I was asked syntactical questions on C programming as well. Different data types, different kinds of loops, difference between malloc and calloc, what is a structure and can you write down a basic structure.

-I was then asked what is setup time and hold time, and to draw a diagram to explain these. I was also asked the definition of slack and skew.

-Lastly, I was asked a puzzle : there are 10 boxes and 5 lines, these 10 boxes have to be arranged between 5 lines such that there are 4 boxes in each line. Since there were less than 2 mins left, however, I was not

able to finish the question.

-I was also asked if I had any questions for him, to which I asked about what role I would be expected to play, should I be selected.

Round 3: Technical Interview (1 hour)

-Again, the interviewer started off by introducing himself, and then asked me to introduce myself.

-He first asked me to design an AND gate using a 2x1 mux, and asked me how do we compliment an input using XOR gate. After I replied that we xor an input X with 1, he asked me what happens if it is XORed with 0 instead.

-He then asked me to design a divide by 3 counter and to draw the timing diagram for the same.

-After that, I was again asked about Mealy and Moore state machines, and to come up with a state diagram for an overlapping sequence detector for the sequence 0110.

-I was then asked questions about basic semiconductors, why semiconductors are used in electronics, what is doping, what is PN junction and how does it operate, and what is the use of PN junctions. Since I am weak in analog electronics, I informed the interviewer right away, and he said that it was alright if I didn't remember circuits.

-He then asked me questions on CompArch. I was first asked to describe the architecture of a processor performing simple R-type instructions.

-I was then asked about cache, what cache is and why it is required (principle of locality), and how a cache operates (direct mapping and tag and index bits). I was also asked about cache coherence.

-Lastly I was asked a puzzle. There are 21 balls, and all of them look alike, in colour and size and shape. But one ball is heavier than the rest. We have a beam balance to be able to differentiate between the weights and find the heavier balls. The question was to come up with a way to find the heavier ball, using minimum numbers of iterations. This time, there was time to understand and solve the problem, my first guess had 4 iterations, but the interviewer helped me come up with a solution through which it would take only 3 iterations.

-I was given some time to ask any questions as well, to which I again asked what role I would be expected to play, and if there was anything that I should learn before joining.

Round 3: HR Interview (10 mins)

-This was less of an interview and more of an informative session.

-I was asked to tell a little bit about myself.

-Then I was informed about the conditions, and that I would have to be flexible about office location and the team I was put in.

-I was then asked if I had any questions, and that was the end of the interview.

-Overall, it was a great experience. The interviewers were friendly and my basic concepts of DD and CompArch were tested.

Important Topics and Subtopics to Remember

Digital Design, Computer Architecture, Digital VLSI, C Programming, Electrical Science Basics, Microelectronics, Aptitude (Puzzles)



Sources of Preparation

For Digital Design, Computer Architecture, ES Basics, Microelectronics: Course material, notes, prescribed textbook, question bank sent by PU

C Programming: Class notes, GeeksForGeeks

Aptitude: Session organized by PU and the related questions sent via mail, interview puzzles can be found on internet

Searce Inc.

Pune

IT

Compensation Offered (CTC) : 800000 PA

B.E. Computer Science, M.Sc.Mathematics

CGPA: 5.94

Recruitment Procedure

Round 1: Aptitude Test

20 fairly simple aptitude and language questions like those from CAT etc. examinations. The best way to get good at these is to practice doing these questions while timing yourself. I needed to solve all of them in order to proceed to the next round.

Round 2: Technical Interview

The interviewer was polite and didnt want to quiz me in detail and accepted rough answers to all his questions. He asked me to describe my favourite project and the other projects I've done in college.

The first set of questions was about my resume and the projects I've done. Then there were specific questions about the software I had worked on. He asked me what the purpose of a webserver was and what to do in order to create a webpage on Django (something I have worked on).

The second set of questions was about data structures and algorithms. The interviewer asked me which my favourite data structure was (stacks/queues) and why I liked them. Then he asked me a commonly asked question about which data structure to use in a fast food restaurant (a queue). When I answered correctly he raised the difficulty of the question by making me accomodate for orders in the restaurant which are smaller and need to be finished quickly (use a priority queue). He then asked me how to prevent starvation in a priority queue (I used a counter variable). I only gave a rough idea of how to implement this. I was not asked to write any code. He seemed satisfied with my answers.

Round 3: Interview with CEO

This round functioned more or less as a generic personality interview. I was asked to talk about my greatest strengths and weaknesses, biggest mistakes I have made in life and the best decisions I had made. As long as you seem interested, ambitious and dont say anything rude this should be easy.

P.S. the CEO made it clear that he didnt like it when people tried to pass off their strengths as weaknesses (e.g. I am too much of a perfectionist)

Important Topics and Subtopics to Remember



Object Oriented Programming
Data Structures and Algorithms

Sources of Preparation

Introduction to Algorithms by Cormen, Leiserson, Rivest and Stein
Geeks for Geeks website

Searce Inc.

Pune

IT

Compensation Offered (CTC) : 800000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.88

Recruitment Procedure

Round 1: Basic aptitude MCQs through Google form. Common apti questions

Around 40-50 students got shortlisted for the next rounds. Searce conducted the HR interviews first and then the technical ones

Round 2: HR interview. Basic HR questions, about project and about Searce. Google about the company before interviews

Round 3,4: Technical interviews. Mainly based on resume and indepth on projects done. A few easy puzzles was asked(geeksforgeeks). Questions were also asked on basics of DBMS too.

CEO interview: Just a casual 5 min chat with the CEO.

Important Topics and Subtopics to Remember

DSA, DBMS, Puzzles from gfg

Sources of Preparation

Interviewbit, geeksforgeeks

Additional comments

Learn more about the company before attending the interviews

Searce Inc.

Pune

IT

Compensation Offered (CTC) : 800000 PA

B.E. Mechanical

CGPA: 8.74

Recruitment Procedure

Round 1: Aptitude test--

The aptitude test was pretty straight forward and it basically measured the accuracy. It was conducted over a google form and time limit was very strict. So try to attempt as many questions as you can with good accuracy.

Round 2: 1st Interview--

So this interview was mainly focused on resume. Interviewer asked about my background, my internships and projects. He also asked some puzzles and what I know about the company in general. The interview lasted about 15 mins. I would suggest to research about the company well before you appear for any interview.

Round 3: 2nd Interview(Technical Round)--

This was purely technical. The interviewer initially checked my knowledge about the company and then directly jumped on to the question: How will you pitch the client to shift to the cloud ? So I tried to convince him by stating all the advantages and disadvantages. He at times, cross-questioned and was basically checking how effectively I can pitch the client for shifting to the cloud. Hence it's always good to do basic research about the profile which you are applying for. Particularly for Searce, try to visit their website and understand the different use cases, case studies they have implemented. This round lasted about 30-40 mins.

Round 4: CEO Interview--

CEO took this interview. He was polite and mainly gauging the personality of the candidate. He asked some questions on resume, general questions about the company and asked some HR and behavioral questions like strengths, weaknesses etc. In a nutshell, it was all about gauging the personality and if the candidate is a good fit to the company or not. Interview lasted about 15-20 mins.

Important Topics and Subtopics to Remember

Go through Aptitude workshop conducted by PU.

Try to solve as many puzzles as you can from geeks for geeks.

Do the company research well before you appear for any interview.





Do profile specific preparation.
Try to practice some mock interviews with your friends.
Feel free to reach out to seniors/mentors for any help.

Sources of Preparation

- PU Aptitude workshop
- Aptitude practice portal by PU
- Case Interviews Cracked book
- Day 1 book
- Case in Point book

Additional comments

Mostly in all the interviews, the interviewer will ask you that if you have any questions for him/her. This is a very good opportunity to showcase him/her that you have done a good amount of research about the firm and you are keen to explore the company. So frame the appropriate question according to your profile/company/interview round. That will set you apart from others.

Hope this helps !
All the best !!





Searce Inc.

Pune

Consulting

Compensation Offered (CTC) : 800000 PA

B.E. Mechanical

CGPA: 8.23

Recruitment Procedure

Round 1: Aptitude Test, Round 2: Preliminary Interview (Knowledge about cloud services, past experiences, resume based questions, one or two basic HR questions), Round 3: Technical Interview (Puzzles, Guesstimates, technical questions based on resume skills, past internships), Round 4: Interview with CEO (Mostly HR type, character based interview)

Important Topics and Subtopics to Remember

Cloud Services, Guesstimates, Case Studies, Basic Aptitude

Sources of Preparation

Examly(BPGC Placement training tests), Case in point, Case Interviews Cracked, Guesstimation 2.0, Vault guide to the case interview(guesstimates)



Searce Inc.

Pune

IT

Compensation Offered (CTC) : 800000 PA

B.E. Computer Science

CGPA: 7.4

Recruitment Procedure

1. Aptitude round

20 basic aptitude multiple choice questions.

2. TI 1

Discussion about the projects and internships from resume. Question asked from the technologies mentioned in resume.

3. TI 2

Question from core CS subjects

Basic questions from DSA, OOP, CN

Some SQL questions

4. CEO round

10 mins round with basic HR questions

Asked me about the 3 best and 3 worst decisions I've taken in life.

Important Topics and Subtopics to Remember

All cs CDC's

Sources of Preparation

GFG last minute notes

Searce Inc.

Pune

Consulting

Compensation Offered (CTC) : 1100000 PA

B.E. Electrical & Electronics Engineering

CGPA: 6.43

Recruitment Procedure

Round 1:

Aptitude Round: Most of the questions were on quantitative aptitude, Also had figure based questions (Refer to indiabix.com for the type of questions asked)

Round 2:

Personal Interview: A lot of HR and situation based questions were asked initially. Interviewer shifted to case study and guesstimates in the end.

Round 3:

Similar to round 2, just a different interviewer this time. He also asked me the difference between the two roles and why had I applied for the Business Tech Analyst role.

Round 4:

Technical Round: Since the company works on cloud based services, he asked me about the basics of cloud computing i.e. advantages, disadvantages, use-cases, something interesting which I knew about cloud technology. He asked few questions on how different OTT platforms work.

Round 5:

Interview with the CEO: This around was based around the resume and certain behavioral questions were asked.

Round 6:

HR Round: A brief introduction about the organization and the related perks, opportunities etc.

Important Topics and Subtopics to Remember

Read a bit about cloud computing.

Sources of Preparation

indiabix.com, pariksha.co, case interviews cracked, IIMA casebook

Searce Inc.

Pune

Consulting

Compensation Offered (CTC) : 1100000 PA

B.E. Mechanical

CGPA: 7.02

Recruitment Procedure

Round 1: General introduction, tell us about yourself, why do you want to join us type questions

Round 2: More technical oriented. Gave a situational problem - If I am an Android/iOS user how would you convince me to switch to iOS/Android respectively. Was looking for structured approach, even if the approach was wrong. I know this because one my solution was done he explained his solution which was much better, but both our approaches were very structured. Keep explaining why you're going to the next step, and how it contributes to the final goal/solution that is needed.

Round 3: Mix of behavioral and technical. A much more senior professional from the company. Asked about basics of cloud, positives, negatives. Also put me in his shoes while making a sale and asked to live pitch to a client. The conversation was very pleasant and we both became very frank/friendly with each other. Try to do the same. Instead of a questionnaire, try to make it a conversation.

Didn't need to go through the rest of the rounds (for others it was 6 rounds) because the 3rd round went fabulous, so the interviewer recommended I go right through.

Important Topics and Subtopics to Remember

For consulting interview, no branch knowledge is needed. Just research upon what the company does and have basics of that field ready. Structured approach is a must.

Sources of Preparation

Case guides for consulting interviews

Searce Inc.

Pune

Consulting

Compensation Offered (CTC) : 1100000 PA

B.E. Chemical

CGPA: 6.4

Recruitment Procedure

Round 1: Apti

It was a basic aptitude test, with generic questions

Round 2: Resume Discussion/Guesstimates

There were 2 interviewers who went through my resume in detail. We discussed my internships and POR. They asked about the reason for my low cgpa. They finished off with a couple of puzzles.

Round 3: Discussion with CTO

He enquired about my understanding of the company and its services. He encouraged me to ask for clarifications, and explained the role. There was brief discussion about cloud architecture and what excites me about the field. It was very conversational. Going through Searce's blogs about their projects came in handy.

Round 4: Technical interview

It included a couple of guesstimates and simple questions or algorithms for a few problems.

Round 5: CEO Round

It was a mix bag. Some questions were:

1. What is your biggest regret in life?
2. Strengths/Weaknesses
3. If you have to plan on setting up traffic lights in your city, how would you optimize the process?

Round 6: Case Round

We discussed how to convince a seller who predominantly sells his items on Facebook to shift his base to Instagram.

Important Topics and Subtopics to Remember

Be thorough with general preparation of non core roles. Take the Aptitude training session conducted by the PU seriously. Make sure you have a story. Be well prepared in case studies and puzzles.





Sources of Preparation

Victor Cheng YouTube Playlist on Case Interviews, Videos and articles on basic cloud architecture, Blogs of Searce, Puzzles on GfG

Searce Inc.

Pune

Consulting

Compensation Offered (CTC) : 1100000 PA

B.E. Chemical

CGPA: 6.64

Recruitment Procedure

Round 1: Aptitude Test

It was a standard aptitude test based on which 30 students were selected for Round 2

Round 2: Resume Shortlisting

This was an interview round , not more than 10 mins long, where the interviewer asked me to questions based on my resume. So it is important that you should be able to explain everything thats on your resume fluently. She asked me about PS1, other summer internships etc. There was no cross questioning.

Round 3: Technical Interview

I was asked a puzzle staright into the interview after greetings. The puzzle was:

Q. Given a two pan fair balance and N identically looking coins, out of which only one coin is lighter (or heavier).How many tries would take to figure out which coin is heavier/lighter.

A. The interviewer didn't want the best possible answer (minimum number of tries), so one of the solution which i explained was to divide coins in half and measure each time and keep on doing it until you get it. This forms a $2^K=N$ pattern. So the number of tries are $k=\lceil \log_2 N \rceil$ where $\lceil \cdot \rceil$ is a step function.

(Note: There is a faster solution to this as well which will take minimum number of tries to find out odd coin)

Round 4: Personality Interview

Here I was given different situations and they wanted to check how would I react/what actions I would take

Situation 1: If you are in a meeting with industry leaders, how will you network with them?

Answer: Explain the interviewer that Industry Leaders are interested in young energy and ideas. Hence, i would not hesitate to directly approach them after the meeting to have a little chat, as that shows enthusiasm and interest.

Then I was asked about what do I think a cloud consultant would do?

It is very important that you do a thorough study of the company you are going to sit for, study what does company do, who were founders, how does it generate revvenue from, what are its business models, etc. You also need to go through your job profile thoroughly and talk to seniors who have already gotten into

the company with same role to better understand the job description.

Round 5: HR Interview

I was asked about Strengths, Weakness, will I be comfortable in changing the office location if the demand arises etc.

Round 6: HR Interview

I was asked more on my interests, where do I see myself in 5 years, etc.

Important Topics and Subtopics to Remember

1. C programming
2. Advanced Excel

Sources of Preparation

Prepare all puzzles from GeeksforGeeks.

Additional comments

Because my interview was online, I think the markers where interviewers can judge you changes.

When you are in face-to-face interview, interviewers can look at your body language, eye contact etc which is not possible in Online interview. I think online interviews are very easy and have advantage over offline.

One single thing that can change the tide in your favour is the confidence in your speech. If you talk with good confidence instead of being a polite pigeon, then there are high chances that you will crack it. The attitude level and the preparation level should be that it is not you who needs the job, but they who need you.

Sedemac

Pune

Electronics

Compensation Offered (CTC) : 1150000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.41

Recruitment Procedure

Round 1 - Aptitude & Technical test

General numerical aptitude questions, nothing especially hard. That test was followed by technical MCQ test which was focused on concepts from basic electronics - ES, and a few from analog electronics. Some questions on JEE level electromagnetism and theory of conductors was also asked.

Around 5 people were shortlisted after the tests (for this profile. Other profile had more shortlists).

Round 2 - Technical Interviews (remote)

Interview 1 (1 Hr):

Interviewer asked for an introduction followed by area of interest in electronics. Asked to elaborate on any project and explain it. This was followed by the interview, the questions are as follows-

1. A simple resistor network given, to find the various currents in it. Soln- KCL and other equation solving techniques.
2. Simple experimental questions like design a circuit to find an unknown capacitance/inductance.
3. A circuit with an ideal diode, inductor and mosfet, input waveform was given and output was asked. Soln - based on fundamentals of inductor and rectifier circuit.
4. An input and output sinusoid was given, and circuit was to be designed to achieve the output - soln based on RLC concepts.

Interview 2 (0.5 Hr):

1. A modified difference amplifier op-amp circuit was given, asked to find expression. Soln - derived from op-amp fundamentals.
2. Design a circuit to produce 3 different voltage levels if inputs can be 0, Vdd, and high impedance. Soln - there are many, mine was using nmos and pmos together.
3. A simple question based on conductor theory (cant recall, but was JEE level).

Only one person was hired for this profile after interviews.

Important Topics and Subtopics to Remember



Electrical sciences - RLC fundamentals. Analog electronics - op amp basics and circuits. Diode + LC circuits from power electronics might also help.

Sources of Preparation

Mainly BITS acad material (slides, textbooks) condensed to the important parts. GATE MCQs for round 1. Workshop conducted by PU, other websites for aptitude.

Additional comments

Mention your approach out loud for each step of the problem. Be confident and tell them whatever your approach is, even if you don't know how to solve it. They will guide you through it in that case. Write big and neatly to show them on camera (for remote interview).

Sedemac

Pune

Electronics

Compensation Offered (CTC) : 1210000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.39

Recruitment Procedure

Round 1: Online Aptitude Test

This consisted of basic aptitude questions. All types of questions were covered in the PU session for aptitude tests.

Round 2: Online Technical Test

This consisted of a combination of questions from electronics and physics. The questions were of the comprehensive type, where you were given some information and then 4-5 questions were asked on it. The questions combined your knowledge of electronics with the physics you learned in class 11-12.

Round 3: Technical Interview 1

This interview consisted of only electronics questions and some puzzles. Basic electronics concepts learned during the first year were checked along with control systems. A question was also asked on solving non-linear equations.

Round 4: Technical interview 2

This interview mainly focused on your approach to solving a problem. The questions were very difficult in this round but the interviewer wasn't interested in just getting the answer but wanted to see how you approach the problem. Analog electronics and Digital Design along with physics were the major topics.

Important Topics and Subtopics to Remember

Basic Electrical Concepts (EEE F111), Analog Electronics, Control Systems, Digital Design, Class 11-12 physics

Sources of Preparation

Prescribed textbooks should be enough

Sedemac

Pune

Embedded

Compensation Offered (CTC) : 1150000 PA

B.E. Electronics & Communication Engineering

CGPA: 8.11

Recruitment Procedure

Round 1: Coding questions, academic question from within syllabus '

'Round 2: Resume Questions, Logical reasoning, Tricky technical questions from projects.'

overall experience was really good, interviewer were nice and friendly. Second interview went more as of a discussion rather than just question answers, It was mostly related to my projects, what kind of problems I faced, what kind of solution I came up with, etc.

I don't remember exact question so sorry i was not able to mention it

Important Topics and Subtopics to Remember

Time Delay analysis

DD: Shift req, sequential circuits, Johnson counter

MUP: interrupts, Stack ques

Comparc: no. of cache, stages of pipeline, R-Type data path, spatial and temporal locality

Verilog: adder, Mux, Encode, decoder

Embedded: Timmer, Communication Interface,

Sources of Preparation

<http://www.vlsi-expert.com/2011/03/static-timing-analysis-sta-basic-timing.html>

<https://www.youtube.com/watch?v=EDbutwR35bg&list=PLbMVogVj5nJSY-1XxFHgwtj2F7mB7NuV>

https://www.youtube.com/watch?v=AJBmlaUneB0&list=PL5Q2soXY2Zi_FRloMa2fUYWPGiZUBQo2

http://www-inst.eecs.berkeley.edu/~cs150/fa13/agenda/lec/lec04-seq_logic.pdf

<http://www-inst.eecs.berkeley.edu/~cs150/fa13/agenda/lec/lec20-timing1.pdf>

<http://www-inst.eecs.berkeley.edu/~cs150/fa13/agenda/lec/lec25-shift-count-f13.pdf>

<http://inst.eecs.berkeley.edu/~cs150/fa11/agenda/>

http://www-inst.eecs.berkeley.edu/~cs150/fa13/agenda/lec/lec05-verilog_synth.pdf

<http://inst.eecs.berkeley.edu/~cs150/sp12/resources/FSM.pdf>

<http://www-inst.eecs.berkeley.edu/~cs150/sp13/resources/Nets.pdf>

<http://www-inst.eecs.berkeley.edu/~cs150/sp13/resources/Always.pdf>





<https://inst.eecs.berkeley.edu/~cs150/fa11/agenda/lec/lec04-verilog.pdf>
<https://www.youtube.com/playlist?list=PLE9A168B753AAE03A>



Sedemac

Pune

Mechanical/Design

Compensation Offered (CTC) : 1210000 PA

B.E. Mechanical

CGPA: 8.05

Recruitment Procedure

Round 1: Aptitude Test:- It had 3 segments containing 10 questions in each one of them. First segment was verbal reasoning in which questions like grammatical error detection, rearranging the jumbled paragraph, synonyms, antonyms etc were asked. Second segment was quantitative aptitude which had questions based on time and work, speed and distance, areas etc. Third segment was logical reasoning which had questions on seating arrangement, syllogisms etc.

Round 2: Technical test:- Graph reading questions requiring the knowledge of basic concepts from 11-12 physics and probability were asked.

Round 3: 1st Technical interview:- Purely technical in nature, interviewer had a question bank in which questions (numericals / viva type) were majorly based again on the application of concepts of 11-12 physics, probability and differential equations.

Round 4:- 2nd tech interview:- Those who performed well in 1st tech round were asked to appear again for the second one. 2nd tech interview was pretty much similar to the first one but unlike the first one, in this round questions were majorly based on your academic and project background.

Important Topics and Subtopics to Remember

- 1) Application of concepts of 11-12 physics
- 2) Probability, vector algebra

Sources of Preparation

Placement preparation sites like Indiabix for aptitude

Quantiphi

Mumbai/Bangalore

Data Analytics

Compensation Offered (CTC) : 850000 PA

B.E. Mechanical

CGPA: 7.85

Recruitment Procedure

Round 1: Aptitude test

Round 2: Technical Interview

Few probability, logical and puzzle questions. I told him that I was comfortable with conceptual knowledge of basic ML algorithms. He then asked a few questions about them. Like supervised vs unsupervised, explaining few algorithms etc.

Round 3: Technical Interview

Similar to round 2. He concentrated only in ML. Asked me to explain few concepts and algorithms. Like bias vs variance, Regularization etc.

Important Topics and Subtopics to Remember

Machine learning concepts, Understanding and implementation of Algorithms.

Sources of Preparation

I have learnt from the Machine Learning course from Coursera.

Signalchip Innovations

Bengaluru

Electronics

Compensation Offered (CTC) : 1100000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 8.5

Recruitment Procedure

Round 1: Online test

The test was divided in several parts, out of which it was mandatory to attempt 4 out of 6 sections, English and aptitude were common for all and for rest of the sections there was a choice between analog, digital, computer programming, and communication.

I chose analog and digital, and they were pretty basic and had very few difficult questions. In this test, time management is the key.

Round 2: Technical interview 1

Here as well the questions were simple. A decent knowledge of digital design was sufficient for answering these questions. Interviewer asked me questions on Static timing analysis (mainly calculating setup time and hold time) , designing complex combinational circuits using simpler combinational circuits, and in the end a few logical puzzles.

Round 3: Technical Round 2

This round was much complex then the previous round, here the interviewer started with a question and kept on making it more complex after every answer. The question was to design a circuit that can average 1000 numbers and display it on a 7 segment LED screen, he later asked me to perform static timing analysis on the design in order to identify flaws.

Round 4: HR round

This was the last round and here the interviewer asked me about my hobbies and my background, rest were the typical HR questions.

Important Topics and Subtopics to Remember

Digital design, ADVD, and analog electronics are very important.

Static timing analysis is also very important.

Sources of Preparation

Moris Mano for basics of digital is sufficient, razavi for analog, and sedra smith for microelectronics. For online tests practice previous year gate papers.



Additional comments

Solve puzzles from various sources online.



Signalchip Innovations

Bengaluru

Electronics

Compensation Offered (CTC) : 1100000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 8.11

Recruitment Procedure

Round 0: Written Round:

This contained 5 parts : Aptitude, Analog, Digital, C Programming, and Signal Processing. They had mentioned that to get selected you needed to:

1. Be among the top 20% just for the Aptitude section and
2. After clearing 1, they'll consider best 2 out of 4 sections and select students accordingly.

So good aptitude preparation is a must. Out of the remaining 4 sections, I had attempted only Analog and Digital questions. The questions for both were fairly easy. For Analog, there were some questions on resistive networks, mos basic circuits, diodes and Thevenin/Norton equivalent ckts. No BJT questions were asked as far as I recall. For Digital, the questions were on combinational and sequential ckts. This could be attempted by revising DD.

Round 1: Technical and Aptitude Interview:

This Round consisted of 3 interviews, 2 of them were based on Analog and 1 on Aptitude.

1st interview:

In this interview, I was asked questions on RC circuits, Opamps, Mos and resistance networks.

Elaborating, for RC circuits, I was asked the step response of low pass filter, high pass filter and then more capacitors and resistors were added (still a 1st order system) and I had to predict the outputs. I was asked one question on Schmitt Trigger (finding the threshold voltages). The resistance network question was 12th JEE physics. For example, finding the resistance of a cubical network where current entered one corner and left from the diagonally opposite corner.

2nd interview:

I was asked 3 aptitude-based puzzles. I would recommend looking at the puzzles section in [geeksforgeeks](https://www.geeksforgeeks.org/).

3rd interview:

In, this interview I was asked to explain my projects and was asked questions on the same.

Round 2: CEO Interview:

This round was just like an HR round but it was taken by the CEO of the company. Some people were asked technical questions in this round too, but I was just asked some HR questions.

Important Topics and Subtopics to Remember



RC circuits, RLC circuits, MOS, BJT, Electrical sciences

Sources of Preparation

Chembiyan sir's videos, Placement material for analog shared by PU

Signalchip Innovations

Bengaluru

Electronics

Compensation Offered (CTC) : 1100000 PA

B.E. Electronics & Communication Engineering

CGPA: 7.3

Recruitment Procedure

Round 1: Technical interview 1:

I was asked about the questions from the online test and how I solved them. The topics were the basic reduction of resistive networks, capacitor charge and discharge, MOSFETs, Op-Amp operations. The interviewer was very supportive.

Round 2: Technical interview 2:

The interviewer was polite and very curious. He asked how the previous interview was and asked for feedback. The interviewer was least judging and never bothered if I take more time to give an answer. He mainly focused on my approach. This time questions were more standard. He mainly focused on OpAmp filters and system properties.

Question 1:

Resistor cube problem

Solution:

<https://www.rfcafe.com/miscellany/factoids/kirts-cogitations-256.htm#:~:text=You%20have%20probably%20seen%20somewhere,is%20between%20two%20opposing%20corners.>

Question 2:

Mosfet input vs output plot.

Question 3:

I was given an OpAmp circuit with resistors and capacitors. I have to determine its function. I had to use various concepts like superposition, feedback, poles and zeroes.

It was an OpAMP all-pass filter.

Round 3: Aptitude:

Since it's a startup they were looking for long term employees. The interviewer asked me questions to know if I stand for my word, if I would go for another company with more pay, if I had any masters plan. After this, he asked some aptitude questions.

Question 1:

Find the number of three-digit numbers such that: a) even if I rearrange the numbers it has to be a

three-digit. b) It should be divisible by 4, even after rearranging.

Solution: 100 to 999. The numbers containing only 4 and 8 will satisfy the given condition. So, 8.

Question 2:

25 horses puzzle.

solution: <https://www.geeksforgeeks.org/puzzle-9-find-the-fastest-3-horses/>

Round 5: CEO interview:

In this round, there were 2 people in the call, the interviewer from round 2 and the CEO. I was asked some personal questions like what my parents do if I had any sibling then what he does. After that it was one-sided, the CEO explained how they started the company and what is their target. I felt like he was preparing me to work for the long term. It went well.

Important Topics and Subtopics to Remember

Network analysis

RLC

control systems

Basic MOSFET

OpAmps(very important)

Sources of Preparation

IITM Nagendra krishnapura's and Chembiyan's videos for RLC

Analog electronics by Maheshwari and previous year GATE questions for OpAmps

Silicon Labs

Hyderabad

IT

Compensation Offered (CTC) : 1370000 PA

B.E. Electrical & Electronics Engineering

CGPA: 8.68

Recruitment Procedure

Online Test - Hosted on Hackerrank, it had 3 DSA questions of easy-medium difficulty. (I do not remember the questions exactly but all three were do-able). Apart from this there were around 8-10 Aptitude MCQs medium difficulty(considering the time was less).

Round 1 - The interviewer was quite friendly. He quizzed me a lot on my resume initially - I had one IOT based PS1 project and since it was related to the company's profile I was quizzed a lot on that. He also asked a lot of questions on my PS2 projects. He asked quite a few C questions related to structures, unions and pointers. He had asked me to share my screen and I had to code out a few basic problems. He wanted to make sure I had a good understanding of the basics of the topics mentioned above (Like writing a function to implement the sizeof() operator - I used pointers to solve). Then he asked me to code a couple of (very) basic problems like reversing a string.

This round went on for around 45 minutes (Even though it was scheduled for only 30 mins). There was no indication on if I had made it to the next round, although I thought it went quite well.

Round 2 - This was quite a short round (20 minutes). The interviewer was quite nice and asked short questions and expected answers to be brief and to the point. He asked me questions on OOP - basic properties, why OOP. He quizzed me quite a lot on my resume. Then he asked me given me past internship at a bank and my finance minor, why I wanted to go for a software role. He then asked basic technical questions like difference between C and C++. He asked me about my plans for MS, my strengths/weaknesses.

Round 3 - This round went on for over an hour. The interviewer was quite experienced in this domain. He asked me a couple of questions on OOP(Like the last round). He saw that I had work related to DBMS at my internship at BNY Mellon, so he asked basic questions related to it (For eg - what is relational database? give an example) . He asked me to write down a couple of SQL queries after giving me sample tables. He then moved on to asking questions related to Sorting (What is the best sort - give its time complexity). Then I was asked to explain how Binary Search worked, what was its best case and worst case time complexity, and what would be the worst number of iterations required while searching for an element between 1-100. After this he started asking questions related to Electronics(Given my background). I was only able to answer a couple and I told him honestly that since I was sitting for a software role, I do not remember some concepts. He understood and then asked open ended questions related to communication / electronics. In this, he explained certain concepts and then asked me questions related to that. (It had something to do with packet probabilities and if a packet in a certain state(good or bad) would reach its destination). The concepts that he explained were new to me, but I

was still able to solve all the questions that he gave me on this. The last few minutes were spent on questions like what do you know about silicon labs, why did you apply here, etc. Finally he asked if I had any questions for him (This is very important, never say no to this). I asked him - Sir, I have heard that silicon labs got awarded the best place to work at in the semiconductor domain, so I wanted to hear it first hand from a person who works here.

Important Topics and Subtopics to Remember

(Written in Order of Importance) DSA, OOP, DBMS, OS

Sources of Preparation

Ed-Mad Course (Startup by BITS-Goa Seniors who graduated few years ago).

Other than that - LeetCode, GeeksForGeeks, Interview Bit

Additional comments

I would say in all of the interview I have given, on thing I have learnt is one needs to know their resume throughout. It cannot be stressed enough how important having correct answers on technical questions related to the project domain you worked on is. (Its ok to not have a flashy resume. I had very basic projects and only PS1 and PS2 as my internships. The main aim is to make sure you have answers to all the questions that can arise from whatever you have written)

Tekion

Bangalore

IT

Compensation Offered (CTC) : 2500000 PA

B.E. Computer Science

CGPA: 8.38

Recruitment Procedure

Round 0: Coding round

The test had MCQs and coding questions.

Round 1: Technical Interview

Detailed discussion about projects mentioned in the resume. DSA questions on priority queues, graph and dynamic programming. OOP concepts like polymorphism and overriding/overloading. A few Networks' basic concepts.

Round 2: Technical Interview

DSA questions on dynamic programming, sorting and hashing. Again discussion on CV projects. The difficulty level of questions was higher than the previous rounds.

Round 3: HR round

Generic discussion and questions like background, strengths, weaknesses.

Important Topics and Subtopics to Remember

DSA: Dynamic programming, priority queues, sorting, graphs.

OOP: Inheritance, polymorphism etc.

Other subjects like DBMS, Networks can be sufficiently prepared from class notes.

Sources of Preparation

InterviewBit, GeeksforGeeks, Leetcode

Additional comments

Be thorough with the projects mentioned in your resume; the tech stack used, the final results etc.

Tekion

Bangalore

IT

Compensation Offered (CTC) : 2500000 PA

B.E. Computer Science

CGPA: 8.8

Recruitment Procedure

Round 1: Online Test (75 minutes)

16 MCQs + 4 Coding Questions

MCQs mostly based on OOP, OS, DBMS and other CS fundamentals. Most easy to medium.

4 Coding Questions - 1 Leetcode Easy and 3 Leetcode Medium.

I was able to complete all 4 coding questions correctly and the majority of MCQs.

Round 2: Technical Interview (scheduled for 60 minutes, actual time: ~80 minutes)

First 20 minutes - Introductions, Internship and side projects etc

Around 45 minutes of Technical Questions:

2 Coding Questions:

1. Given a sorted array with each element occurring twice except one. Find that number in $O(\log N)$

2. Given a Binary Tree, check if BST.

Some Language-specific questions. (Virtual Functions in C++ etc)

Basic OOP questions (Polymorphism)

Some DBMS Questions (What are indexes, where they are useful and where we should not use them)

Some Questions around Resume related terminology like I had datastore written on the resume.

Last 15 minutes, general ending chat.

Round 3: Technical Interview (scheduled for 60 minutes, actual time: 50 minutes)

First 5 minutes - Introductions

40 minutes of Technical Questions:

2 Coding Questions:

1. Solve a Linear equation given as a String. Handle 1 solution, no solution and infinite solution.

Ex: $4x+3x+10+2x=6x-4 \rightarrow x=-14$

2. Check if given Sudoku board is valid or not. Optimize further. Some discussion on Thread safety.

Round 4: Manager Round (20 minutes)

Discussion on Startup vs Big company, values, products, the market of the company etc.

Some situation questions.

Discussion on Internship and Personal projects.

The interviewer was also an ex-Google so he asked me about my code readability experience there.



Round 5: HR Round (15 minutes, but I was the last person so the discussion continued for 30-35 minutes)
Discussion on Goals, Ambitions, Strengths, Weaknesses, etc
Discussion on Startup vs Big Company, Tekion's leadership, market and future.
General HR questions like what do you like to do in your free time, do you spend time with family etc.

Important Topics and Subtopics to Remember

DSA, OOP, DBMS, OS, General technologies on Resume.
Be fast in the coding tests and interviews, questions are mostly easy, you just need to maintain the pace.

Sources of Preparation

GeeksForGeeks, Leetcode, Interviewbit, CS subject Notes

Additional comments

Don't be an answering machine in Manager and HR rounds, show them you are interested to talk to them and ask them what they feel about something.

Tekion

Bangalore

IT

Compensation Offered (CTC) : 2500000 PA

B.E. Computer Science

CGPA: 8.63

Recruitment Procedure

First Round: Online Coding Round

It consisted of 24 questions of which 20 were MCQs along with 4 coding questions. The coding questions carried different marks based on the difficulty of the question. These were 20,50,50 and 100 respectively. Don't remember the questions though. MCQs were based on Computer Science fundamentals.

The entire interview process was conducted on Zoom

Second Round: Technical Interview

This round started with the interviewer asking me to describe any one of my projects. Rest of the round was mostly based on DSA. The interviewer asked 3 DSA questions and the interview lasted almost an hour.

Third Round: Technical Interview

This round was based more on knowledge of overall Computer Science concepts. The interviewer asked questions from Operating Systems, DBMS, OOPs such as explaining concurrency control in Operating Systems, writing a basic SQL query etc. He also asked 1-2 DSA question. Additionally, I was asked to describe two of my best projects.

Fourth Round: Manager Round

The interviewer asked questions based on my resume. He went over subjects like OOPs, DBMS, OS etc that were mentioned in the resume and asked some questions about all of those. He also asked a few simple Machine Learning questions as it was also present in my resume. He asked me about my favourite subject. My answer was DSA so he asked a DSA question.

Fifth Round: HR Round

A very short HR round that barely lasted 15-20 minutes. The interviewer asked basic questions like introducing myself, my strengths, weaknesses etc.

Important Topics and Subtopics to Remember



As in the case of any software interview, DSA is the most imp subject. But companies also stress on other CDCs. Operating Systems, Object Oriented Programming and Database Management are three CDCs to pay special attention towards.

Sources of Preparation

DSA:

Leetcode, GeeksForGeeks, InterviewBit

OS: Slides

OOPS: Slides

DBMS: Sanchit Jain on Youtube

Networks: Slides



Tekion

Bangalore

IT

Compensation Offered (CTC) : 2500000 PA

B.E. Computer Science

CGPA: 7.81

Recruitment Procedure

Round 0: Coding Test

This round had 15 - 20 MCQs and 4 DSA programming questions (Q1 - 50pts, Q2 - 100pts, Q3 - 100pts, Q4 - 150 pts) with a total time limit of 1hr 15 mins. The MCQs were on OS, Java, OOP and program execution outputs. Overall both sections were of normal standard questions and weren't that hard but the time limit made it difficult to complete the round.

Round 1: Technical Interview

I only had easy DSA questions in this round. This round took place for around 25-30 mins. My interviewer asked me to share my screen and use any IDE, any language of my choice to implement the code.

Ques 1: Given an array of N-1 unique numbers filled with values from 1 to N, find the missing no. in the array.

Since this was an easy question I directly told him the solution. I mentioned the pigeonhole principle to explain the correctness of my approach. I gave a solution with time complexity $O(N)$ and space complexity $O(1)$.

Ques 2: Given an array of N numbers and an integer K, find a number which occurs exactly K times in the array.

I took a min or two to put together the solution in my mind and told the interviewer my solution. I gave a solution with time complexity $O(N)$ and space complexity $O(N)$.

Ques 3: Given references of two head nodes, find the node at which both linked lists intersect.

I spent 2-3 mins on coming up with a solution and told him that. I directly gave the optimized solution with time complexity $O(N)$ and space complexity $O(1)$. I talked about edge cases in my approach and how to address them.

Ques 4: Given an array of N numbers and an integer S, print (with repetition) all pairs of numbers in the array whose sum is equal to S.

Again I spent 2 mins in putting together a proper solution and then told my interviewer that.

For each question after we discussed the solution, I implemented the code for it. (PS: It is important to

write the code as readable as possible by properly aligning the code, choosing relevant function/variable names, etc.)

Round 2: Manager Round

This round was based on my resume. The round took place for around 15 mins. I gave an introduction and talked a little about the projects, internship and relevant courses that were in my resume.

Then the interviewer asked me about the work I did in my internship for which I gave more details about the intern project, the reasons for choosing the proposed solution, the problems faced while working on it, how I overcame those problems, etc.

Now he asked me about an RL project that I mentioned in my resume. I explained the project's problem statement, why I worked on that project and how I came up with a solution. I also talked about teamwork and how my teammates and I efficiently communicated, divided the work between ourselves and kept track of each other's progress while working on this project. He asked for a real life application where the given project solution is used. I gave a few applications where RL models are being used and why they are used.

He then asked me about the TAsip that I mentioned in my resume and I told him about the role and responsibilities involved in that TAsip and how I helped the students and professor in that course.

He asked me if I had any questions and I enquired about the work culture, expected working hours, etc.

Round 3: HR round

This round also took place for around 15 mins. I first introduced myself to the interviewer, talked about my interests, reasons why I chose my discipline, etc. He then asked about the BITS college life. I told him how damn good the BITSian life is and how helpful and engaging the seniors and peers are. I talked a little about the clubs, dept. work that I did. At last he asked me if I had any questions and I once again enquired about the long working hours which was mentioned in pre-placement talk and about the domain, type of work that freshers will work on. (PS: It's important to google about the company, read glassdoor reviews and listen to pre-placement talks so that your questions can be related to that.)

Overall the interviewers were friendly and very easy to engage with.

Important Topics and Subtopics to Remember

The general stuff - DSA, OOPS, DBMS, OS concepts and a little CN.

Knowing System design concepts is a major plus.

Brush up the topics related to the projects mentioned in the resume.



Sources of Preparation

DSA - mainly gfg and leetcode.

System design - any youtube playlist will do. The system design playlist from Gaurav Sen channel is a good one.

Additional comments

Be ready to answer any questions related to the projects and other information that you have mentioned in the resume. Don't put anything just so that it looks good in the resume.

Make a list of HR questions and practice them. It is difficult to think of a good answer on the spot. Add past experience stories (real/fake) that will support your answer.

Tekion

Bangalore

IT

Compensation Offered (CTC) : 2500000 PA

B.E. Computer Science

CGPA: 7.88

Recruitment Procedure

Round 1: Technical Interview

I was asked four DSA questions in this Round.

Q1) Find the nth node from the end of a linked list

The expected answer requires to use two pointers, but I gave a brute force solution, and we moved on to the next question

Q2) Given a number and an array. Find all the pairs from the array that sum to the given number.

This question requires using a hashmap. This is a pretty standard question, and you would have encountered while practicing. Two variations of the questions were where duplicates allowed or not.

Q3) Given a number and a Binary Search Tree, return true or false on whether the given number present in the given Binary Search Tree.

Q4) A list of n-1 integers, and these integers are in the range of 1 to n. There are no duplicates in the list. Find the missing integer.

Round2: Technical Interview

Initially, there was a brief discussion about my resume, and quickly the interviewer went on to ask me about Object-Oriented questions. Shortly after, he asked me to implement a stack using Object-Oriented principles. Then he asked me a question on stacks which is:

Q) Sort a stack in ascending order using multiple stacks.

--The required answer uses just another stack and has similar logic to insertion sort. But I gave a sub-optimal solution using extra stacks.

Round3: Managerial Round

There was a discussion about my resume and the project mentioned in my resume. There was also a brief discussion about the topics of the project I worked on.

Round4: HR Round

The interviewer asked me to explain my background. And there were a series of questions following that

Q) What would you be if you are not an engineer?

Q) What are your weaknesses?

Q) Explain a situation where you worked on something diligently?



Q)Do you have any questions about the company?

Important Topics and Subtopics to Remember

DSA,Object Orientated Programming,Database Management

Sources of Preparation

InterviewBit,Leetcode,GeeksForGeeks

Texas Instruments India Pvt. Ltd.

Bangalore

Electronics

Compensation Offered (CTC) : 2443405 PA

B.E. Electronics & Communication Engineering

CGPA: 9.04

Recruitment Procedure

1st Round: Written Round. The test was of the MCQ format, with ~20-25 questions each in Analog, Digital and General Aptitude. Questions weren't hard per se but required a firm grasp of the fundamentals. No calculator was allowed but numbers were small and easy to deal with.

Example questions:

Analog - Op-amp basics, Barkhausen criterion (find the value of gain of a particular stage for sustained oscillations)

Digital - Design combinational ckt to say if a given 5-bit number is prime or not.

General Aptitude - Logic Grid puzzles (many are available online)

2nd Round: Technical Interview. Syllabus is same as in Round 1, but this time the interviewer checks your approach as well. Efficient, intuitive methods of arriving at the answer are preferred. In my case, for Analog, there were 2 interviewers, one after the other. For digital, there were two interviewers who interviewed me together.

Example questions -

Analog -

RLC ckt is given, draw output waveform if input is a step or a pulse or a ramp or whatever.

Draw Bode Plot, explain how you arrived at each answer intuitively.

There was one question involving an op-amp being used as an inverting integrator, where feedback was being broken after some time. The voltage across the capacitor had to be plotted.

There was one question where a square wave was passed into a channel with a limited bandwidth, and the waveform that is received out of the channel is to be drawn. Square wave had a frequency of 1 MHz, and the channel bandwidth was 2 MHz, so the output will just be a sine wave of frequency 1 MHz. (Do Fourier analysis - all harmonics above 2 MHz are chopped off).

Digital -

How many Boolean functions are possible with 'n' input bits and 1 output bit? (Ans: $2^{(2^n)}$).

Design N-input NOR gate using the minimum number of 2-input NOR gates.

There was also one question based on Booth radix multiplication.

They were really looking for a good approach more than anything else; I'd give them a solution, they'd point out flaws/limitations/shortcomings in my solution and tell me optimize, then I'd given them a new

solution, and the cycle would repeat till the optimum solution was reached.

Important Topics and Subtopics to Remember

Analog -

Electrical Sciences. RLC ckts are VERY important. Sometimes they'll throw in a diode or a switch and tell you draw an output waveform.

MuE/ADVD - gains, looking-in resistances at input or output for various amplifier configuration. Frequency response is important.

ConSys - Feedback, Frequency response, Root Locus, Bode Plots, Nyquist plots, stability margins.

SAS - Frequency Domain analysis, Fourier series analysis.

Analog Electronics - Op-amp basics, Open-loop vs closed loop, feedback are very important. One question based on Barkhausen criterion usually comes.

Digital -

Combinational & Sequential Logic, K-Maps, etc.

Sources of Preparation

1) Chembiyan Thambidurai Sir's video lectures on YouTube for RLC and Microelectronics fundamentals are amazing.

2) G. P. Ankush's notes (given to PU) are a veritable treasure trove of questions.

3) TI's past year papers (given to PU) have some really good questions.

4) Usual reference text books like Razavi or Sera-Smith for MuE and ADVD, Morris-Mano for Digital Design.

5) GATE Questions (GATE papers are available online)

6) YouTube channels like All About Electronics, Tutorials Point India, etc.

Additional comments

While Power Electronics is not necessary, it's a useful tool to have. In my written round, there was one question that made use of the Voltage-Sec balance concept. This is a straightforward concept that is easy to derive on the spot, but it helps if one is familiar with it to begin with.

Texas Instruments India Pvt. Ltd.

Bangalore

Electronics

Compensation Offered (CTC) : 2443405 PA

B.E. Electronics & Communication Engineering

CGPA: 8.11

Recruitment Procedure

Written round 1 :

Approx 7 questions on RLC circuits : Find steady state solution etc.

2 questions on inductor+diode.

7-8 questions on opamps.

1 question on MOS.

2-3 questions on switched capacitor networks.

The tough questions among these, have been shared with PU. Please solve them.

I attempted 15 out of 20, and I got 1 wrong. There was negative marking. +1/-0.5 was the grading.

6-7 people cleared this round.

Interview round 1 :

He saw my CV and commented me that I did a lot of courses related to analog (Analog IC Design (reading course), Analog Electronics, ADVD).

Started questions after that.

1. Box 'A' and 'B' are huge resistive networks with no reference voltages (like a 'ground' or 'Vdd') inside them. Connect a random node in A to a random node in B with a resistor. Find current through this resistor. Ans = 0 because there is no closed path for current flow. Next, connect a node in A to ground, and see if current flows through the resistor now. Ans = 0 for same reason.

Next, connect a node in b to ground, and see if current flows through the resistor now. Ans = yes because current leaving box A for example has a return path also.

2.

RC Lowpass filter was given. Draw o/p voltage if step voltage i/p is given.

Cap placed parallel to R. Explain what happens - LHP zero introduced, so circuit does not start from 0 V after step i/p given.

R placed parallel to 1st cap. Explain what happens. Initial voltage determined by ratio of caps because they behave as a 'short' right after step is applied.

Steady State : Caps are fully charged and behave as open-circuit. Solve accordingly.

Interviewer was a nice guy. He wanted qualitative answers almost throughout.

3.

Inverting integrator given. step voltage i/p given. plot o/p voltage. Assume rails are +/- infinity volts.

Next, assume finite rails, say +/- 5V. Plot o/p voltage. How does -ve terminal of opamp get affected after o/p reaches -5V?

Ans : -ve f/b broken after o/p reaches -5V. -ve terminal of opamp rises from 0 to a value=i/p voltage in an exponential manner.

Next, place a large cap connecting -ve terminal of an opamp to ground. What is the problem caused by this?

Ans : lot of delay introduced in -ve f/b path. This can lead to instability. I didn't get this, but the interviewer was cool with it, he said he asked it because he had time to spare in the interview.

3.

Pass a square wave of 1MHz, going from 0 to 1, into a multimeter in average mode. Find o/p. Ans = 0.5 V.

Pretty straight forward, but I got it wrong. I over thought it and I was not giving the correct answer.

4.

Pass the same i/p as earlier into a CRO of bandwidth 2 MHz i.e. it kills any i/p freq component beyond 2MHz. find o/p : square wave has components at DC, 1 MHz and all odd harmonics as well i.e. 3,5,7 etc. o/p will retain DC and 1 MHz, to yield a level shifted sine wave of 1MHz, going from 0 to 1.

Interviewer was a nice guy. He wanted qualitative answers throughout.

3 people cleared this round.

Interview round 2 :

1. He gave a switched capacitor network and asked to find steady state voltage at a certain point. The answer was the sum of a GP. He added another switch and capacitor and asked the same question. I have shared a PDF with my interview questions (including this one) to PU. Please solve them later. He wanted me to highlight the main steps I took to solve, and the final answer mainly.

2. Very simple opamp question. It is part of the PDF. He wanted general outline of the way I solved it and final answer also.

3. He asked me "Can I ask you transistor questions?". I said okay. He asked impedance looking into source of a MOS, with an ideal current source connected to the drain. Small signal impedance offered by a current source is infinity. So, impedance looking into source will be infinity because current has no path to travel. He said "What if MOS has finite lambda i.e. R_o is not infinity?". Ans : Answer does not change because there is still no return path for current.

4. Solve for the DC small signal impedance looking into a network. It had a CMOS inverter and a resistor. It is part of the PDF. It me time to get the answer. Once I told it to him, he asked how I got it. I explained, and after that he asked me 2-3 times "Are you sure?". I replied yes throughout. The interview ended after that.

2 of the 3 people cleared this round.

In both the interview rounds, I was asked no questions on the projects I have done.

HR round :

She was a nice person. Just wanted to know my academic background (school to college). Wanted to know why i liked analog. I said that the mainy courses I did on campus relating to analog made me like it a lot. I said that I took other courses also (digital/comparch area), to ensure I know the basics in those subjects also before

I graduate. An important point was that the faculty who I interacted with on-campus were my main motivation. She asked in the end if I wanted to know more about the company, CTC etc. I asked a little about the at-home work situation. The interview ended after that.

Both the students who gave the HR round got the job.

Important Topics and Subtopics to Remember

1. RLC circuits

Pole-zero analysis.

Obtaining steady state solution, with and without initial conditions.

Circuits involving charging and discharging of capacitors, with and without initial conditions.

2. Opamps

Basic configurations - inverting/non inverting amplifier, rectifier, superdiode (very important), Schimdt trigger. You don't need to learn IC Timers.

Barkhausen stability condition.

Basic Oscillator circuits - Wien Bridge and Twin T are the main ones. You should be able to derive their formula using the Barkhausen stability condition.

3. Transistors

Basics of MOS and BJT - Regions of the device, Inversion and Depletion region in MOS should be clear.

The level of doping of Source/Drain and

Emitter/Base/Collector should be clear. I have shared with PU a pdf explaining it. Please study that.

Latch-up. I have shared with PU a pdf explaining it. Please study that.

Neil Weste's CMOS VLSI Design textbook covers basics of MOS well. This is a must to read.

Razavi's Fundamentals of Microelectronics will cover basics of MOS and BJT well. Better to read this.

4. CMOS Inverter - Transfer characteristics should be clear. You should be able to explain the significance of the PMOS and NMOS i.e. why does PMOS pass logic 1

better than logic 0? What happens if we exchange position of NMOS and PMOS ? etc.

Sources of Preparation

For Analog -

1. Most important source - Youtube channel called 'chembiyan T'. Made by a faculty of Bits.

URL : https://www.youtube.com/channel/UCbASDVRKAJByMa5rz6Uv_lw

Watch every video posted on it.

It will clear concepts in the area of : RLC circuits, transistors, single stage amplifiers and cascodes.

2. NPTEL course - Analog IC Design - by Dr. Nagendra Krishnapura of IIT Madras.

URL : https://www.youtube.com/watch?v=eLTpf_5di2o&list=PLbMVogVj5nJRMz5diOg9wBizaU6-egJc

There are 60 videos. Watch the first 43.

Concepts taught : Negative feedback, opamp designs at a control systems level, transistors, single stage amplifiers, cascodes, Common Mode Feedback, Noise analysis.

All concepts are comprehensively taught.

Note : The first 10 videos are on negative feedback. It is taught in a very comprehensive manner. This is among the few, and the best source to learn about negative feedback. Watch the first 43 videos without fail.

3. Important for problems : A question bank with around 300 questions on all concepts in analog. Only a hard copy exists as of now. It is possible to create a soft copy, but it might take some time. You will find problems here that are not found in any other book or on the Internet.

4. I used a PDF that explained latch-up, and a PDF for MOS-BJT comparison. I have shared them with PU.

For Digital -

1. Basic concepts taught in Digital Design course - Logic gates, MUX, encoder/decoder, Kmaps and Mealy/Moore models. Use Morris Mano.

2. Study Static Timing Analysis. People taking ADVD, should sit in the classes taken by Prof. Pravin Mane. Whatever he teaches for this concept is sufficient.

He will solve a tutorial for this concept. The practice you get from that is sufficient.

Additionally, refer to this website. They have compiled the theory and problems.

URL : <http://www.vlsi-expert.com/2012/09/maximum-clock-frequency-static-timing.html>

For CMOS Inverter and Electronic Devices -

1. CMOS VLSI Design - A Circuits and Systems Perspective by Neil Weste and David Harris. Study only chapter 2 called 'MOS Transistor Theory'.

Udaan

Bangalore

IT

Compensation Offered (CTC) : 3500000 PA

B.E. Computer Science

CGPA: 8.35

Recruitment Procedure

1st Round : Machine-coding Round/Low-level System Design:

This was a 2-hour test on HackerEarth to design a movie booking system. This was a typical question which we are asked in the OOP lab. You had to take inputs which specified queries/ addition of movie halls and print the necessary output. Basic principals of OOP were required and validation of the input needed to be done. You had to make sure the input details were correct and in the proper format before proceeding to process the query.

2nd Round:

The question was to design a Bus Reservation System. A PDF was given regarding the necessary components to be added and all the coding was to be done locally. This was similar to the first round, but this time APIs were to be generated to process the query. I used Flask to create the APIs and MySQL as the backend. The time was reduced to 1.5 hrs in this round. Similar concepts like input validation and OOP design were to be applied in this round.

3rd Round:

The interview started with the question tell me about yourself. Then he asked me about the previous 2 rounds and how I thought I had performed. Then he proceeded to ask me about the project I had done at my internship. We discussed it in detail, about every component and why was it needed. Then he moved on to my projects. He asked about why the project was important and all its components. He asked my contribution (it was a group project). Apart from the technical questions about both the projects (internship & personal) he also asked some behavioral question like how was the work division done, how did you know you were on track during the project, what interested you towards this project and field, is there a necessity for this project, etc.

4th Round:

This round also started with a discussion about my internship work. The interviewer knew about the technologies that I used and mentioned they used the same technologies at Udaan too, so we had a good discussion about them. Then he moved on to ask some Product based questions. He started by giving me a statement " 60% of the drivers of Ola/Uber get 90% of the rides". He asked whether I think this is a problem or not and how will I find out what's the cause of this. Then let's say we found out a cause how will I resolve the issue, and how will I check whether the issue has been resolved. Then he moved on to



what app/web-site I used most frequently. What do you think more could be added to the app or what could be improved about it. How will you generate the data to support the addition of the new feature? How will track whether the users liked the new feature or not?
Then we had a talk about the role and the various challenges faced by the team.

Overall the whole process was quite unique as it tested the practical knowledge and didn't focus on DSA or other theoretical knowledge. The process favors the people who have done development in the past rather than people who have done just DSA, OOP, DBMS, etc. for the interviews and haven't used them in projects.

Important Topics and Subtopics to Remember

OOP, DBMS, System Design

Sources of Preparation

Geeksforgeeks

Additional comments

Be very confident about your resume. Have 1-2 projects about which you can talk in details, not just the technical parts but also stuff like did you get stuck somewhere in the project, why did you choose this project, how did you know you were on the right track, etc.

Udaan

Bangalore

IT

Compensation Offered (CTC) : 3500000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 5.76

Recruitment Procedure

Round 1: Coding Round

API Design - HackerRank Based

OOP Based

Time - 2 hours

Design a Movie Ticket Reservation System

The problem statement is that you have to complete the functionality of :

- a) add-screen {screen-name} {rows} {cols} {aisle-seats}
- b) reserve-seat {screen-name} {row-number} {seats-to-book}
- c) get-unreserved-seats {screen-name} {row-number}
- d) suggest-contiguous-seats {screen-name} {number-of-contiguous-seats} {row-number} {preferred-starting-or-ending-seat-number}

Input/Output Format given

Need to implement classes and functions all on your own. And call the entire thing in the Main function as given on Hackerrank

OOP Based

19 Students shortlisted for Round 2

Round 2: Coding Round

API Design - Zip File Google Form Submission

OOP Based

Time - 1.5 hours

Bus Reservation System

Design and implement an application to book buses based on source, destination, and date.

APIs

- 1. Search for buses based on source, destination, and date
- 2. A user being able to reserve 'n' number of seats on a particular bus (this API should keep



availability of seats on that bus in mind)
3. View reservations for a user (both past and upcoming)

7 Students shortlisted for Round 3

* In both these rounds, it was nowhere mentioned to use the principles of OOP - class design, function calls, static/non-static, data visibility, documentation, data abstraction, etc., but you had to use them since these were API Designs *

Round 3: Technical Interview

Time - 30 minutes

Udaan Interviews are based more on a general discussion of technology and my Resume.

Asked to introduce myself (Prepare this beforehand, most of the companies will ask this and it sounds easy but isn't). Then he gave me some situations and asked me how I would approach them:

1) Suppose you are part of the Ola Android App Analytics Team and you see that Users sign up for the app but leave the app after 15 minutes and never come back. What can be the possible issues and what steps will you test your hypothesis and prove and test your solutions.

Solution:

a) Issues can be UI/UX related that the application is too cluttered and complex to use, or, Maybe the app is asking for certain permissions that aren't needed for Ola e.g. Camera permission, or, too fast battery drain

b) To test my hypotheses I'll start one by one testing the prospective issues. Then for each solution, I'll Alpha Test the solution among small groups of people and slowly proceed to Beta testing for larger concentration in different regions. Then according to the data collected a decision can be made as to what solution actually works.

2) The interviewer asked me about my favorite app and a feature that is missing and I want to see in the app. Now imagine that I am a part of the App Development Team and I want to see if my proposed feature is actually useful or not. How would I go about testing and proving this? What all can I do to see which features to prioritize and which to discard?

Solution:

The only solution I can come up at that time was to consult with Senior Members and float a User Survey like many companies for users to rate which features they like and which ones they would like in future releases. Then according to the data collected a decision can be made as to what features to prioritize and which ones to totally discard.

Then he proceeded to ask about my favorite project in my Resume. I pointed out my current project that was going on at the moment and he asked me to explain it, what it was about and what all I did in that. I did all the explanation but the project was an industry-based and not a personal one.

So he asked if I have an original personal project which I had implemented from scratch. I had done a

System Design SOP just previous semester under a CS faculty, so I pointed out that in my Resume. I had also Open-Sourced it on GitHub and had added that link to my Resume, so I asked the interviewer if he can please open that link since it'll be easier to explain that way. He opened the link, just glanced at the entire repository, and said that it's great that I had added the link on the Resume and open-sourced it. He then said that he'll take a look at it on his own since I had added all the documentation and code comments in that. That was it.

All of this took around 22 minutes, and he asked me if I had any questions for him and the usual formalities. The interview ended in 25 minutes.

Round 4: Technical Interview

Time - 30 minutes

Again a general discussion of technology and my Resume.

Asked to introduce myself and asked how my Coding Rounds went and what I thought about them as to how they didn't ask pure DSA Questions, unlike most companies.

Then he just asked me to walk him through my Resume, so I started with that, starting from my Work Experience. At the top was the same project that I had at first talked to with my previous interviewer. It was the complicated project in my Resume (related to Computer vision, library benchmarking, library integration, and backend interface development), so I started explaining it in detail and as soon I started, he started asking me questions related to it:

- 1.) How did you benchmark these libraries, what was the general procedure, and if you know about any conventional methods?
- 2.) You mentioned that you didn't know anything about the Benchmarking Process when you started the project, how did you start? What were your initials steps?
- 3.) How did you ensure the uniform and constant data flow during the entire benchmark process?
- 4.) How did you keep a track of time and memory requirements for each library?
- 5.) Tell me about a time when there was a major blockage and how you went through it.
- 6.) Your project works on both Python and Swift, and you mentioned that Python is slower than Swift. Do you know why that is so? - I didn't know that, so I clearly stated that I didn't know the clear reason, but while testing Python and Swift libraries, I saw the metrics and found that Swift was faster than Python. I know that wasn't the right answer but I think he was okay with it.
- 7.) Do you have any experience working with any Cloud Service - One of the libraries benchmarked uses GPU Acceleration. I didn't have any GPU at my disposal at the time, so I had to benchmark it on Google Cloud Compute Engine. So I explained to him the entire process and what all I worked on.
- 8.) You mentioned some issues when compiling using CMake and Swift Package Manager, what were those and how did you get through them?

Then the explanation was over and around 25 minutes were gone by now. So he asked me a couple of general questions:

- 1.) Do you follow any blogs or places to be updated regarding the new technologies and improvements - I

answered that I didn't follow any blogs as such except Medium articles. And that since I am a lot in Open-Source, my Github is configured automatically to recommend libraries and repositories that can be useful for me.

2.) You said your Github recommends you libraries, can you give an example of any such library - I had recently used such a library so I explained about it.

At the end of the interview, he asked me if I had any questions and I asked him about his role and what expectations are there from a New Grad entering Udaan. And he then explained to me what he works on and the opportunities inside Udaan etc etc

Finally, 4 students were offered a Full-Time Position

Important Topics and Subtopics to Remember

OOP

Data Structures

Don't write anything on your Resume that you are not absolutely sure about

Sources of Preparation

OOP Labs can be a great practice, try doing them in a time-constrained setup - Question of Coding Round 1 was one of the labs that I had earlier done in my OOP Course with a very slight modification

Course Slides are good enough to get a theoretical understanding

LeetCode - Do Design questions, will help in understanding which Data Structure to choose where and how to combine multiple in a single struct

Additional comments

Udaan focuses more on Design Patterns and OOP, so prepare that well. And be sure of what you write on your Resume, have a very good knowledge of your projects, minor details matter.

Udaan

Bangalore

IT

Compensation Offered (CTC) : 3500000 PA

B.E. Computer Science, M.Sc.Mathematics

CGPA: 8.11

Recruitment Procedure

Udaan is the only company that doesn't focus much on DSA. They focus on how you tackle real-world problems in terms of the structure you define and the flow of data.

The coding round was to build an API for reserving seats in a theatre.

There was a second coding round as well, where they asked to build an API for reserving seats on a bus.

The question statement contained the constraints and features.

These two rounds focus primarily on your ability to think of the structure of the system, the functions(API calls) required as well as the coding style. The question statement only contains the requirements of the system, and not each function to be defined (unlike, OOP labs)

Make sure that you use proper naming conventions as well as properly indent the code. I did not write many comments in my code, but the name of functions and containers were self-explanatory.

I had two interviews with Udaan.

The first interview was concise (15-20 minutes). We discussed the projects briefly, and then I was asked two questions.

1) Suppose that you owned a ride-hailing app service(like Uber/Ola). You noticed that new customers are exiting/deleting the app after 15 minutes of engagement. How would you tackle the problem?

The solution I provided: The users are not able to navigate through user-interface and were unable to look for what they wanted. I mentioned a couple of more points, but he asked me how I would solve the UI/UX issue.

2) Suppose you have a logistics company(E-Kart/Delhivery). You noticed that the return orders had increased drastically. How would you tackle it?

The solution I provided: It could be that the number of customers engaged in fraudulent activities has increased, or there could be a change in logistics(like, did we start delivering at an unusual time?). He followed this up with how I would tackle the fraudulent customer issue.

In the second interview, we primarily just talked about the projects initially. The interviewer later asked me the best practices to be followed in backend development. I mentioned these things briefly: code quality and readability, CI/CD, fault tolerance, server crash restart, balancing traffic, logging, log rotations.

Important Topics and Subtopics to Remember



OOP, in depth knowledge of your projects.

Sources of Preparation

OOP labs. Read about industry practices for the field of you've worked in/ interested in.



Udaan

Bangalore

IT

Compensation Offered (CTC) : 3500000 PA

B.E. Computer Science

CGPA: 7.68

Recruitment Procedure

Round 1:

OOP bases Coding Question.

Implement a movie ticket booking system wherein the following details are given:- 1. Screen number

2. Number of seats in each screen

3. Isle seats in each screen

The query asks to check/book n number of seats consecutively and we have to return the seat numbers accordingly.

Round2:

Bus Ticket Reservation System

(Duration: 90 minutes) Design and implement an application to book buses based on source, destination and date. The application should take care of the following aspects:

- Repository of bus information containing bus company name, bus number, source, destination, start time, end time, frequency (days on which the bus is active), total number of seats in the bus (capacity)
- Ability to search for bus based on source, destination and date
- Reserve 'n' number of seats on a particular bus based on availability of seats.

APIs

1. Search for buses based on source, destination and date
2. User being able to reserve 'n' number of seats on a particular bus (this API should keep availability of seats on that bus in mind)
3. View reservations for a users (both past and upcoming)

Expectation:

- Clean professional level Code
 - Modelling of core entities and relationships between them.
 - Your code needs to be demonstrable. To do this, you can need to have an API based solution either as a WebApp, MobileApp or even provide basic API calls to run through the above mentioned workflows.
-

-
- Workflows for creation of bus repository are not required. This could be pre-loaded as a part of application startup.
 - User Identification but not authentication
 - Backend Database is optional. However modelling should be complete

Round 3:

Some business and operation related questions like:-

1. If our users are deleting the app just after installing then how will you retain them.
2. If we have a Uber like app, you observe that only few drivers are getting most of the rides. Then how will you solve the problem.

Round 4:

In this round they pick projects from your resume and ask questions around that.

The questions were like:-

1. Does Javascript support multi threading.
2. What are different development environments.
3. How does WebSocket works.

Important Topics and Subtopics to Remember

Web Development, OOPS

Sources of Preparation

- 1.Udemy Node.js course by Andrew Mead for Backend and API
 - 2.Thorough understanding of concepts taught in the OOP Course.
-

ZS Associates Pvt. Ltd.

Pune or Gurgaon

Consulting

Compensation Offered (CTC) : 893000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 6.66

Recruitment Procedure

Round 1: Automated Round

1.1 - Aptitude - General Apti questions + some English. Quite Easy, nothing that can't be done even without any prep, but some basic prep would help.

1.2 - Case Study: Had a market entry case with a few MCQ questions.

Some data or goal was given and the next recommended step was asked, for eg, based on hold of existing competitors in marker would it better to merge with a competitor or buy them out or have a new brand setup etc. Not very difficult but required some business acumen and common sense. Could be confusing though.

1.3 - Video Round - Question flashed on screen for 10s and then had 3 mins to record a response to the same. Most people get filtered here.

Had behavioral questions like "Tell us about a time you handled large data/Leadership Role/Handled a crisis," "What would you do if you disagree with a teacher in a full classroom," etc. Also had guesstimates, common ones but they need to be properly prepped - "No. of tennis balls you can fit in an air plane" etc Basically for checking speaking skills, posture, body language and of course depends on quality of answers also

Round 2: Case Study

2.1 Briefing: Had a briefing at 7AM - Introduced to the basics of the case we'd be doing. It was a written case study. Briefed about rules and regulations and all. Question came on online platform, we had to solve on plain paper and upload the scanned pages to be evaluated.

2.2 Case Study Solving: Had 60 mins to upload a bunch of things and solve the case also. Important to stay ready with all documents they require, the case solving takes some time, most people report not being able to complete it.

Case study based on Sales Incentive Structuring. Were given data about sales of regions and managers and all, basically a lot of graphs and tables. Had total 4 questions, each with sub-parts.

Has a lot of calculations in the first couple questions - most time consuming- write the formulae and process you intend to follow and complete calculations later (Unless they're required in a follow on question). Nothing tough, but kinda lengthy. Takes a few mins to pen down thoughts and formulae and then just as much to calculate final values. Show each step properly no matter how trivial or obvious.

Next few questions were qualitative (What all columns should be there in the managers report to see the final bonus calculated, how to do data quality checks on them, what are the problems with the current

structure, is it in line with the company's goals, design the data flow from each table to be able to get and display the data required, suggest improvements, etc)

2.3 Case Interview: Happened an hour after the solving part. Took another hour to complete. Basically explained each answer I wrote in detail, entire thought process and calculations and everything AS BASIC AS YOU CAN. Mention even the MOST obvious things and calculations and insights. Interviewer was friendly and helpful throughout. Also asked a few puzzles (Basic Geeks for Geeks questions), nothing tough, but had to show thought process again. Some people all got guesstimates.

Criteria: How well you handle large data (Tables, charts, etc), how you make sense of it, how you present all the above AND HOW YOU EXPLAIN IT (V Imp).

Round 3: EBI/FIT Round

Goes on for about 30-40 mins. Questioned on resume, basic behavioural questions, stress on why ZS and all. Looking for a comprehensive answer here which covers company values and doing the right thing and about the people and culture in addition to work. Recommended that you speak with someone working here before this round.

Important Topics and Subtopics to Remember

Puzzles

Behavioural Questions

Basic business acumen to solve case studies

Sources of Preparation

Geeks for geeks for puzzles

Everything else is normal. Google.

Additional comments

Confidence is important. The whole deal: Speaking, body language, etc.

Know what ZS does and how is the work culture and people.

ZS Associates Pvt. Ltd.

Pune or Gurgaon

Consulting

Compensation Offered (CTC) : 893000 PA

B.E. Electronics & Communication Engineering

CGPA: 6.18

Recruitment Procedure

There are 2 stages essentially consisting of 3 rounds each. All the rounds are eliminatory in nature.

STAGE ONE: Stage one consists of an Aptitude test(42 questions with 10-12 testing your English), an analytical mcq based consulting case(8 questions, 30 minutes) and an AI proctored video interview(8 questions with 10 sec window for preparing each of your answers. Behavioural questions, small guesstimates are asked). While you'll be giving all the tests one after the other in the first stage, only mcq based answers of students who did well in apti will be considered for shortlisting. Pretty basic round in my opinion, just stay confident in the AI one as it solely monitors your body language and voice modulation.

STAGE TWO(held a week or so after the first stage): Comparatively difficult as compared to the first one. You'll be given a ZS case study wherein you'll have to submit the answers in an hour's window as a scanned pdf. Judges your analytical skills. Easy for someone who attended the ZS campus beats workshop.

Once you submit it, you have an interview with a consultant from the company whose main objective is to discuss your answers and thought process with you about the scanned pdf you submitted. However, you'll always be breaking the ice with your interviewer before getting to work. You'll be asked to introduce yourself and stuff, try being as relaxed and chilled out as possible, talk about stuff you genuinely like and not about stuff you think your interviewer might be pleased to hear. I mentioned football and traveling, half of the time we were chatting away about that and it makes your interviewer connect with you better. This is followed by the case discussion, which again isn't very difficult and it's capped off with a guesstimate. I was asked about the percentage impact of a bullet train project on the golden quadrilateral on the airline industry.

If you make it through this round, the last round is an FIT interview. A very senior member like an associate principal takes this generally. I was asked to explain my resume, questions about why consulting or why zs in general, why the BOA profile. This was followed up by an analysis based study where he presented me with a 7*8 table with a lot of numbers and I was asked to find the patterns and stuff. Lasted for a good half an hour this bit, and then he asked me if I had any questions for him. Now this is an important part and you should be asking the right questions like What as a fresher were the things you felt you did right /wrong? What softwares do you recommend me to learn for having an edge at the point of joining? What was the one favourite project you worked on and sorts. It makes them consider you seriously as a candidate.





Important Topics and Subtopics to Remember

Just your basic aptitude preparation will do. Make sure to do zs campus beats cases as they help a lot. And give mock interviews and I'm saying this again, try to be as chilled out and relaxed because essentially they are checking your personality.

Sources of Preparation

Case in Point is a good book that helps you develop the thought process. There are a lot of sites online you can practice aptitude skills on.

ZS Associates Pvt. Ltd.

Consulting

Pune or Gurgaon

Compensation Offered (CTC) : 893000 PA

B.E. Mechanical

CGPA: 6.24

Recruitment Procedure

Phase - 1

Round 1: Online Test-Aptitude, LRDI, Visual (e.g. find N in paragraph of M or how many Ts are in the sentence), Verbal Ability.

Round 2: Problem Solving Deep Dive - MCQs on a case study provided, questions on trends, future steps and challenges.

Round 3: Video interview - Puzzles/Guesstimates, Basic HR questions (e.g. Speak about a time you solved a conflict), nonsensical questions (e.g. You find a dinosaur in your washroom, what do you do?), No interviewer, software judges based on communication skills, fluency etc.

Phase - 2

Round 4: Case study- Case study of a hypothetical pharma company is provided and 4 complex data interpretation questions are asked. For me 3 purely mathematical questions and one on the basis of general trends and averages were asked. Time given is 30 min. You don't need to solve the questions completely but figure out the approaches to solve each question so that you can explain them in the interview which comes next. The interviewer asks the solution to each question followed by puzzles/guesstimates.

Round 5: Evidence Based Interview+FIT interview - General HR questions like tell me about yourself, why ZS?, why consulting?, why your specific profile?, grilling on basis of your resume, details of projects, basic questions on your CDCs, your role in the company(important) etc.

Note - All rounds are eliminations.

Important Topics and Subtopics to Remember

Basic knowledge of your discipline, data interpretation, basic case study knowledge

Sources of Preparation

Rocketblocks(website), Case in Point(book), LRDI material for CAT.

ZS Associates Pvt. Ltd.

Consulting

Pune or Gurgaon

Compensation Offered (CTC) : 893000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 6.07

Recruitment Procedure

Round1

It was an online round 1.5 hours long. It had 3 parts: Aptitude, Problem Solving Deep Dive, and Computer Aided interview (all combined 1.5 hours).

1. Aptitude round:- It was a time crunch, 50 questions in 45 minutes, 50 questions had some verbal reasoning (which didn't require much time, so try to do this part as quickly as you can to save more for quant section) and the quant section had basic mathematical reasoning problems along with a some qualitative reasoning as well. This will require some time. My advice:- Dont waste too much time on a question, if you are unable to get the answer on first try, dont mark it for later because you won't have much time left. If it has negative marking, dont even think about flukes, just leave it there unattempted, unless the probability of getting the right fluke is more than 0.5

2. Problem Solving Deep Dive:- This was a 20 minute section. A business problem Prompt was provided which was something like "ABC company is a market leader in heavy machinery and is looking to grow. The rest of the market is pretty fragmented (and some more info was given)."

Based on this prompt, 8 MCQ questions were asked to understand the business understanding. example question:- Should ABC go for a) Organic growth b) Horizontal acquisition c) Vertical acquisition d) Conglomerate acquisition.

3. Computer aided interview:- 25 minute section, in this a question appeared on the screen, and we had 3 minutes to answer the question, we were recorded via webcam and microphone and the recording would stop after 3 minutes (or if u click on stop recording) for every question. Questions revolved around you and your strengths, weaknesses, work experience, and in the end we had 1 guesstimate to solve in 3 minutes. In guesstimate we were just asked to give a strategy / approach of looking at the problem. my guesstimate question was "Estimate the number of traffic lights in my city"

Round2

Round 2 had 2 sections: a written case study round, and a case interview. In the written case study round, we were given a case with some business brief and their company data. My case was about BnB businesses and the data that was given was about their properties, their customers, their customer reward policy (discounts and cancellation charges), reservations, and customer satisfaction per booking. Based on all this data, 3 questions were asked which we had to answer in 1 hour. We had to upload our solution sheets on the platform for evaluation. Everyone who had this round had a case interview in which we were asked about our approach for how we solved our case studies. My advice, even if you dont do

well in the case study round, try to remember the data given, and the questions, because there is time between your case interview and case study round so you can get your mind right and think about appropriate solutions to the questions.

Round3

After this case interview, shortlisted students had a final interview with an experienced manager from ZS. My interviewer asked me questions around my resume (mostly about my internship experience and the work that i did), and we solved an optimisation problem for logistics industry. Question:- How can you design an algorithm to reduce the delivery times for online store owners? What parameters will you look at."

Important Topics and Subtopics to Remember

The profile has nothing to do with your CDCs. Areas of preparation should include Aptitude practice (a lot of it), qualitative and verbal reasoning, practice guesstimates, and puzzles and brainteasers (look them up online, so that you develop some intuition on how to proceed when a puzzle is given in your interview)

Sources of Preparation

1. Case interviews cracked (YT channel, helped in developing strategies for solving guesstimates and business cases) and other case handbooks of IIMs and ISB consulting clubs (find buddies and give each other cases)
2. Puzzles and Brainteasers (google search will work fine)
3. Examply placements tests (for aptitude and logical reasoning)

Additional comments

Along with skills, luck also matters on the day of your interviews. Maintain a good CGPA (I will suggest 7.5, in order to clear cutoffs for maximum number of companies, after you clear the initial CGPA cutoff for a company, its all about skills and some luck)

ZS Associates Pvt. Ltd.

Pune or Gurgaon

Business Analytics

Compensation Offered (CTC) : 893000 PA

B.E. Chemical, M.Sc.Mathematics

CGPA: 6.73

Recruitment Procedure

The recruitment process had 2 phases and each phase had 3 rounds each.

Phase 1 - If you clear the cutoffs for this phase you are allowed to go to the 2nd phase. This phase had 3 rounds. And it was totally proctored and online on a platform. The process was such that if you clear the round you would get a link to proceed for the next round and if you don't clear the cutoff for a particular round you would not be allowed to give the next round.

Round 1 - MCQ test for 30mins.

It was a basic test that each and every company holds. It contained questions related to LR and Quant.

Round 2 - PSDD for 30mins

This round had MCQs related to DI and general business sense containing different graphs that had to be analyzed and compared to the data given

Round 3 - Behavioral type questions for 30 mins

In this round, you were asked 8 behavioral type questions and you need to record your video and audio response for that question and submit it. Everything takes place on the same platform.

Phase 2 - If you clear phase 1 then you are allowed to sit for phase 2. We were 22 who got into phase 2. It had 3 rounds. 1st was a case study, 2nd was an interview (it was an eliminatory round) and 3rd was another interview.

Round1 - Proctored case study

You are given 60 mins to solve a case study mostly based on graphs and data given to you. You have to solve the case on sheets of paper and then upload it onto their proctoring platform. It had 4 parts.

Round 2 - Interview based on the case study you solved in the previous round

For me, it was a 60 min interview encapsulating questions based on my resume, guesstimates, and the case study. They would ask you each and everything about the case study like how you solved it and how you got the answers so be thorough with that.

Round 3 - FIT Interview

It was also a 60 min interview for me. The interview revolved around questions based on my resume and also included some behavioral questions.

The most important round is the Apti round as if you are not prepared for that you won't go-ahead for



further rounds. So it a suggestion to prepare well for the apti rounds for all the companies that you want to sit for. It plays a major role.

Important Topics and Subtopics to Remember

Aptitude test preparation, resume based questions and case studies.

Sources of Preparation

The workshop organized by PU for aptitude is a must to attend. Case interview cracked - book for guesstimates and cases. GeeksforGeeks for puzzles.

Additional comments

Be patient in the whole process and have faith on PU. Try to keep your calm during the interviews.

ZS Associates Pvt. Ltd.

Pune or Gurgaon

Consulting

Compensation Offered (CTC) : 893000 PA

B.E. Electrical & Electronics Engineering, M.Sc.Biological Sciences

CGPA: 6.99

Recruitment Procedure

Round 1: Aptitude test.

Normal Aptitude questions that you would find in tests like CAT.

Round 2 : Problem solving deep dive.

I had to solve a business problem through a series of mcqs.

Round 3 : Video Interview.

A lot of HR questions. The answers are recorded in windows of 3 mins per questions.

Round 4 : Case Study Interview.

I was given a time of 60 mins to solve a case followed by an interview with a senior consultant at ZS. The case involved a lot of data interpretation and number crunching. We discussed my approach towards solving the case in the interview. I was also asked a few easy puzzles related to cubes in this round.

Round 5 : EBI + FIT Round (Final Round)

This was an Interview round with a team leader at ZS. We had a discussion regarding the experiences mentioned on my resume. I was asked a couple of guesstimates: 'How would you estimate the amount of paint required for painting a tree?' and 'Estimate the distance travelled by a swiggy delivery partner in 1 day'. Apart from this, I was asked a lot of HR questions.

10 students were given offers after this round.

Important Topics and Subtopics to Remember

NA

Sources of Preparation



Aptitude - CAT prep is good enough. Else, be diligent with the PU's aptitude workshop.
Guesstimates: Youtube videos and practicing guesstimates with friends.

Additional comments

Cases coming for the case study round are very similar to those discussed during ZS campus beats events. The cases aren't very difficult, but the guesstimates can turn out to be a curveball. Preparing for some basic HR questions like 'Why ZS ?' and having some stories related to how you showed leadership skills / communication skills / teamwork will be helpful if extempore is not your strong suit. Overall, ZS is one of the easiest companies to get placed in, if you are really interested in consulting.

ZS Associates Pvt. Ltd.

Pune or Gurgaon

Consulting

Compensation Offered (CTC) : 893000 PA

B.E. Electronics & Instrumentation Engineering

CGPA: 7.52

Recruitment Procedure

We got on a video call with the HR at 7AM and they walked us through the process for the entire day.

Round 1: Case Study round

The case round was conducted on Talview platform and lasted 90 minutes. We were given a case with 5 datasets and a sample report. We were asked to write the SQL queries/flowchart/algorithm/procedural steps to obtain each row of the report on a paper and upload the final solution as a PDF. We were also asked to comment on various aspects of the data provided and give suggestions about other data that could be collected.

Round 2: Case Interview round

It was conducted over another Zoom call. A senior professional from ZS Associates reviewed my submission to the case round and asked me to walk through my submission to the report generation question. He then asked me the remaining questions from the case study. He also selected various subsets of the data and asked me to point out the incongruities in the data. He then asked me if I had any questions for him, so I asked about the day to day responsibilities of a BTA. This round last for about 30 minutes.

Round 3: EBI+FIT round

I met with a leader at ZS Associates. He probed me on specific items on my resume - my PS2 experience, summer internship, PS1, and certifications. He also asked me my 3 major learning from my PS2 since it was at a recruitment consulting firm. He did not asked me any puzzles or structured/unstructured problems. He asked me if I knew about the history of ZS Associates, which I had prepared from their website and Youtube channel. He asked me if I had any questions for him so I asked him about the different people a BTA interacts with as a part of a project. This round also lasted for about 30 minutes.

Important Topics and Subtopics to Remember

Quantitative aptitude, problem solving, basic SQL if possible.

Sources of Preparation

Mock tests arranged by PU for Quantitative Aptitude, external courses on SQL for data science, geeksforgeeks for puzzles.



Additional comments

Knowing the background of the company, being hands-on with data.

ZS Associates Pvt. Ltd.

Consulting

Pune or Gurgaon

Compensation Offered (CTC) : 893000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.6

Recruitment Procedure

Round 1 : Aptitude Test

MCQ test (Data interpretation, Reasoning, etc)

Round 2 : Digitally Proctored Behavioral Interview

8 Behavioral questions (strengths, weaknesses, etc) with a time limit of 1 min to prepare and 3 min to record answer.

Round 3 : Case study

Usual case study as in a consultancy interview.

Round 4 : EBI round

Guesstimates, Puzzles, and Resume go-through

Round 5 : Fit Round

Discussion with a senior leader at the firm for future plans, etc. Expect some situational questions

Important Topics and Subtopics to Remember

No subject as such. Quantitative aptitude is the only 'technical-skill' required

Sources of Preparation

Various internet sources, no one can be specifically recommended for ZS.

Additional comments

Should be analytically analyzing the situations given and should have a calm and composed nature.

ZS Associates Pvt. Ltd.

Pune or Gurgaon

Consulting

Compensation Offered (CTC) : 893000 PA

B.E. Electrical & Electronics Engineering

CGPA: 7.7

Recruitment Procedure

Round 1 :

Online Audio-Video proctored test on Mettl. It consisted of 3 sections. Section 1 and 2 were Vocab, Apti and Quant based with easy to medium difficulty level questions. Section 3 was audio based consisting of guesstimates and behavioural questions. 20-30 seconds were given to think after each question was displayed and another 20-30 seconds to answer it orally. (Take care of your grammar and sentence formation while answering these questions)

Round 2:

Case Study Challenge – Timing: Case Study - 7 AM – 9 AM, Discussion – 2-3 PM

30 mins were allotted to solve a case study which consisted of 5 questions. We had to write the solution, scan and upload it on Mettl. Each student was then allotted a mentor. The uploaded answers were then discussed with the mentor on a zoom call. It is important to explain and justify all the steps logically.

Make sure to go through all the questions atleast once even if you don't get time to solve all of them. All the questions were word problems and could be solved using quant concepts.

Round 3:

HR Interview – Zoom call with a senior ZSer

Usual questions like Introduce yourself, why ZS, how did you come to know about our company, why consulting or analytics, what are your hobbies, are you sure you can handle the long hours and challenges that come with consulting, one guesstimate

Important Topics and Subtopics to Remember

Case Studies, Guesstimates, Quant, Logical Reasoning, Vocab

Sources of Preparation

Case Studies :

Textbooks- Victor Cheng, Case Interview Cracked (available online)

Group discussions

I had also joined APEX Academy (Bootcamp) led by a BITS senior to help with Non-Core placement

Apti, Quant, Verbal : Examly BPGC portal

ZS Associates Pvt. Ltd.

Pune or Gurgaon

IT

Compensation Offered (CTC) : 1278000 PA

B.E. Electrical & Electronics Engineering, M.Sc.Mathematics

CGPA: 7.71

Recruitment Procedure

Round 1: Online Assessment:

This round consisted of 35 MCQs related to Machine Learning, Probability and Statistics, Quantitative Aptitude. There's also a simple Coding round at the end of it which consists of 1 implementation question either from strings/arrays/stacks and be easily solved.

Round 2: Interview 1:

Presentation:

Among the shortlisted students, Interview 1 is a presentation round, where the candidate needs to present a topic or a Research project that he/she has worked on at PS/Thesis/SOP/LOP etc. This round is 1-1:15hr long, and the first 30 mins is presentation.

ML Questions:

The latter part of the interview, the 2-3 interviewers ask questions and doubts related to presentation and try to evaluate the candidate's confidence and responsibility along with depth of Machine Learning by asking a few Theoretical questions related to the topic as well which connects with the project. I'd given a presentation on Object Detection, and I was asked minute details about how Region Proposal Network works and, what's the difference between SSD Networks and Faster RCNN. The round ended with a few basic ML questions such as Regularisation, Evaluation Metrics such as F1 score, Precision, Recall, Matthew's Correlation coefficient, AUC-ROC Curve.

Round 3: Interview 2:

Puzzle Round:

This round was slightly different from the previous round. I was given puzzles to solve such as Sudoku and Memory based games after being asked what kind of games interests me. I was able to asked to give pseudocode/working code if I'm comfortable with, for the same game.

Resume Deep Dive:

The other half of the interview was related to my Resume deep dive and what kind of work experience did I hold as compared to my peers in the different Internships. Since I'd done my Thesis at Microsoft Research, I was asked questions about why I chose Thesis over PS-2 considering ZS did come for PS this year. I was also asked a few generic ML questions from one of the algorithm of choice.



ML Questions:

I chose Ensemble Models such as Random Forest, so I was asked questions related to the same, how it works as compared to Decision Trees etc. The round ended with a little bit discussion about extra curriculums considering ZS is consulting firm in it's roots and needs candidates to be good representatives overall.

Round 3: Interview 3:

If your previous round went well, this round didn't take place. But a few of the students had an HR round to shortlist final candidates.

Important Topics and Subtopics to Remember

Open:

Machine Learning, Neural Networks and Fuzzy Logic, Data Mining, Probability and Statistics, Mathematics-2

DELs:

Digital Image Processing (EEE)

Optimisation (Math)

Statistical Inference (Math)

MOOCs:

CS 231N, CS 229, CS229D, CS 230 (Stanford) - Optional*

Read up on topics such as Decision Trees, SVMs, KNNs, K-Means, CNNs, RNNs, etc. Questions will be based on a topic or model of your choice so need to be thorough with the algorithm and it's mathematical intuition.

Sources of Preparation

1. Stanford Open Courseware - YouTube Playlists
2. Coursera Courses
3. Pattern Recognition and Machine Learning - Christopher Bishop
4. Deep Learning - Ian Goodfellow

Additional comments

Be confident in Aptitude and Problem Solving along with Basic Coding since some other firms hiring for similar roles look at proficiency of these topics as well.

There's also a 1.5L+1.5L+1.5L bonus given at the end of first till 3rd year at company above and beyond the CTC which was later intimated to me so just thought I'll point that out as well.



Zynga Games Network Pvt Ltd

Bangalore

IT

Compensation Offered (CTC) : 2000000 PA

B.E. Electronics & Communication Engineering

CGPA: 6.89

Recruitment Procedure

Round 0: Coding test and Problem Solving:

It had 2 sections.

First section had 15 Aptitude based questions. (Aid provided by PU in the form of Aptitude Training was helpful for this)

Second section had 3 questions.

1st question was: Given a sorted doubly linked list and an index i and a value r . We have to subtract the i th element of the linked list by r and reorder the element such that the list is still sorted.

The solution was a combination of traversal of doubly linked list and inserting value in a doubly linked list.

2nd was a standard Trees question to print the left view of a tree.

3rd question was given a string, remove duplicate characters and replace them with the next lexicographic character.

I used sets to solve this question.

After this, 12 people were shortlisted for the interviews.

Round 1: Technical Interview Round 1:

The interviewer asked me to introduce myself (just usual formalities). He discussed the projects mentioned on my resume. And told me that the round is going to be a coding /problem-solving round.

He started the technical questions by testing my CS concepts.

Q1. What is stack frame?

Q2. What is Normalization? Why is normalization needed? What is functional dependency? (Basic DBMS. Additionally he also asked what the different normal forms are.)

DSA Questions:

Q1. Given 2 strings one ss and ls ($ss \rightarrow$ short string $ls \rightarrow$ long string), count the number of permutations of ss in ls .

I solved this using a map, where the map's keys were the characters from ss , and checked the characters in ls . I traversed ls as a window of length ls and returned the count. The interviewer was satisfied with my

solution.

Q2. Given a file containing 10 Billion URLs, with each URL 100 characters long.

Remove the redundant URLs.

I suggested multiple solutions. Initially my solution was time optimized (storing each URL in an unordered_set) but the interviewer pointed out that that would take up allot of space. Then I suggested a space optimized solution where I was traversing the entire file N^2 times where $N=10$ billion. And explained how based on the constraints either could be used. I explained the trade off between time and space. He was satisfied with that explanation.

After this, he asked me basic CS questions:

Q1. What is the difference between DFS and BFS? (DSA question)

Q2. What is a deadlock? What are the conditions of deadlock? How can we remove deadlock? (Direct OS question)

Q3. What are Virtual classes? (OOP in C++)

Q4. What is the difference between HTTP and HTTPS? (Computer Networks)

Q5. What is encryption and what are the different types? (Computer Networks)

Round 2: Technical Interview Round 2:

The interviewer started discussions about my project. But in this round the discussion was more elaborate. He asked me the implementation of my Amazon Internship project. He added constraints to my project and asked me to come up with solutions for it. He also asked "Given the opportunity, what changes would you make to the project?"

He proceeded to ask me technical questions to test my knowledge in general.

Q1. I was given OOP code snippets. I had to predict the output and give reasoning for it. Most of it tested different types of inheritance. (My suggestion for Non CS people is to go through GFG articles on OOP. The questions given in their articles is very similar to what was asked.)

Q2. Given a positive integer N, write a code to get the English cardinal spelling of the number. For example: $N = 90,241$ will give output: Ninety thousand two hundred forty one.

I stored the the names of numbers (0-19) in a map, multiples of 10 in a map.

Then checking every digit, I generated the name. The interviewer was satisfied with this approach.

Q3. Given an array of root words and a sentence. I need to find if each word of the sentence had a root word from the array. I had to retain the root word in the sentence and discard the remaining letters of the word.

For example: Root words: cat, far, the.

Sentence: There is cattle in the farm.

Output: The is cat in the far.

I suggested a solution to store the root words in a Trie. And then I traversed the sentence and parallelly traversed the Trie to check if the root word was a part of the sentence word or not. I wasn't able to code

the entire logic for discarding the characters in time. But I coded the structure of the trie and traversal. He was impressed with that only.

Round 3: Coding /problem-solving Interview Round 3:

The interview was my manager.

First I was asked my intro, my Amazon internship project details etc. Then he directly jumped on to DSA questions.

Q1. Given a sorted array, build a balanced BST.

<https://www.geeksforgeeks.org/sorted-array-to-balanced-bst/>

Q2. Given a list of everyone's names in Bangalore and a list of all the names in Delhi, I have to find the K most popular names in both cities.

For example Karan appears in Delhi 5000 times and 5 times in Delhi, but Arjun appears 100 times in Delhi and 20 times in Bangalore, Arjun will be considered as more popular. ($20 > 5$)

I suggested storing the names of the first city in a map along with the count of the names. Then as I would traverse through the second list, I would add the common names of both cities in another map and decremented the count of that name in the first list. Then I returned the kth most occurring names from the list.

Q3. What is the difference between threads and processes? (Direct OS question)

Q4. (He was about to ask me a Sys Design question in OS, where I'd just have to mention what all components will be there in the system. I told him that I did not do OS, so he asked me a different question. This was the alternate question he asked me) What all should be there in a Web server system? (This was a question of Computer Networks. I also had to explain the process of an https lookup)

At the end of all the interviews, I was given time to ask the interviewer a few questions.

Round 4: HR Interview:

Q1. Tell me about yourself.

I told my Name, and gave them a gist of where I was born , brought up and my college life. I also mentioned my interests and hobbies (talked allot about non technical side and what all I learnt from Clubs and Departments). I also talked about my passion for Graphic Design.

Q2. My interviewer explained me how gaming industry is different from other industries hence the work will be very different from other IT companies. So why do I want to join Zynga.

I explained my inclination towards Gaming industry. I explained that I do Graphic Designing so I get

instant results in that. Whatever efforts I put in designing, I get to see the final outcome then and there. This will be same for gaming industry as whatever we design and code will immediately reflect in the form of the game. This gives me a thrill and the motivation to improve on my work.

Then the interviewer left it open for me to ask him questions.

I asked him to tell me about the work life at Zynga and the Bangalore Campus. (Since we did not have a Pre placement talk, this was a valid question to ask.) The interviewer was visibly happy and explained very passionately the work life at Zynga.

In the end 3 people were selected.

Overall the process was fun as the questions were very unconventional and I hadn't seen such questions in previous year question repositories. I had to come up with solutions on the spot.

PS: Also be thorough with all types of sorting algorithms. Interviewers won't generally ask to state the sorting algorithms, but they might modify the sorting algorithms and ask questions. In such cases knowledge of sorting algorithm proves beneficial.

Important Topics and Subtopics to Remember

Important Courses:

DSA, OOP, DBMS, Operating Systems, Computer Networks

Non CS People:

Generally companies won't ask questions from DBMS, OS, Computer Networks if you specify that you haven't done the courses. In my case, I had gone through the basics of these courses, so I was able to answer the questions asked.

DSA and OOP are a must no matter what.

Try to be proficient in OOP and DSA both in your preferred language (C++ or Java). If you give one language preference for DSA, try to stick to that for OOP as well. Most the people do DSA in C++ while they try to shift to Java for OOP, as it is done in these languages in our BITS courses.

Sources of Preparation

For DSA, I'd recommend going through video tutorials that are available online on YouTube for a basic understanding of the topics. And then practice from GeeksforGeeks, Interviewbit and Leetcode.

Before any interview, do go through the previously asked questions in that company's recruitment process. These are available on GeeksforGeeks and Glassdoor.

<https://www.geeksforgeeks.org/must-do-coding-questions-for-companies-like-amazon-microsoft-adobe/>

I had taken OOP and DBMS as my electives so I prepared from the lecture slides. While revising, I



prepared from the previous year questions on GeeksforGeeks from articles on both OOP and DBMS.

I had Communication Networks as my CDC, so I revised the theory concepts from my notes. (OSI models, ports, various protocols)

Additional comments

Since Zynga is a gaming company, it is advisable to know the very basics of making a game. (Nothing advanced is needed though.) I was asked a question where I had to explain the process behind rendering an animation for a game. So I also had to explain basic terms like Frame rate.

I was also asked a question about the different types of games available. (Hyper Casual and Sticky Games) I did not know the answer to this question.



Sem-I 2020-21 (M.E.)

Amdocs

Pune and Gurgaon

IT

Compensation Offered (CTC) : 6.9 LPA

M.E. Computer Science

CGPA: 7

Recruitment Procedure

ROUND 1 (ONLINE TEST):-

The online test was conducted on “AMCAT” platform by “Aspiring Minds”. It had the following 6 sections:

1. Personality/Psychometric – 80 questions – 20 minutes
2. Quantitative Aptitude – 16 questions – 18 minutes
3. Logical Reasoning – 14 questions – 16 minutes
4. English – 18 questions – 16 minutes
5. Coding – 2 questions – 45 minutes
6. SQL Queries – 2 questions – 15 minutes
6. Linux, PL/SQL, C – 30 questions – 20 minutes

Total time: 2 hours 30 minutes

Before beginning of the test, the student had to choose the language for the coding questions out of C/C++/Java.

ROUND 2 (TECHNICAL INTERVIEW):-

5 people were shortlisted.

The questions covered were more in breadth than depth. It also focused a lot on projects. It lasted for around 1 hr 10 minutes. Questions were :

1. Introduce yourself.
2. Questions on projects.
3. Explain the data structures you know.
4. Explain about time and space complexities. Why is it needed.
5. Courses I did in ME apart from BE. Told me to explain few concepts to him from those subjects. I explained concepts from Information Retrieval and Real Time Systems.
6. Explain OOPS concepts with real life example.
7. Write 20 Linux commands and explain their use.
8. 5-6 SQL queries.



-
9. Basic networking questions like subnetting, supernetting, layers, etc.
10 . His area of expertise was in Data mining. So he asked me questions on it too as I had taken this course in BE.

ROUND 3 (HR INTERVIEW):-

Only I was shortlisted.

Basic HR questions about family background, hobbies, strength and weakness, biggest achievement, why Amdocs, preferred location.

Important Topics and Subtopics to Remember

Data Structures, SQL, OOPS, LINUX Commands

Sources of Preparation

Geeksforgeeks

Additional comments

The process is simple. Only mention those things in the Resume which you are sure about.

Analog Devices

Bangalore

Electronics

Compensation Offered (CTC) : 24 LPA

M.E. Microelectronics

CGPA: 8.34

Recruitment Procedure

Round 0: Subjective test -

The test consisted of 10 Technical and 3 Quantitative aptitude questions. Try solving the questions with proper steps.

Round 1: Technical Interview -

Firstly the interviewer asked me to introduce myself and my interests.

Started with basic digital electronics. Ex - What is Don't care and High Impedance states ?

Questions on Static Timing Analysis - Setup Time, Hold Time, Metastability ?

Counters, Ring Counter, Johnson Counter, Memories and Digital design questions.

Questions related to verilog. (Be thorough with concepts in verilog like types of delays, synthesizable and non synthesizable, etc)

Some basic programming questions related to C or any language mentioned.

Methods to avoid Metastability? Synchronizers, FIFO, Asynchronous FIFO

ASIC Design flow with each step in detail.

Question related to FPGA and its design flow.

Questions related to Verification, UVM, System Verilog and verification questions.

Detailed discussion about projects.

Round 2: HR Interview -

Introduction and questions related to the hiring process, long term goals and standard HR questions.

Important Topics and Subtopics to Remember

VLSI Design topics

Static Timing Analysis

CAD for IC Design topics

Verilog HDL

Details about Projects

Sources of Preparation



Digital Design : Morris mano and GATE notes.

Kang, Rabaey

STA: vlsiexpert

Verilog HDL: Samir palnitkar



Arup

Hyderabad

Mechanical/Design

Compensation Offered (CTC) : 7 LPA

M.E. Design

CGPA: 8.33

Recruitment Procedure

Round 1: Coding Test: (120 min)

This test involved solving 6 basic coding questions.

Writing pseudocode was sufficient, and syntactically correct code was not a requirement.

For reference look into basic sorting and searching algorithms. Also Practice coding questions from HackerRank and Geeks for Geeks and solve the introduction lessons and challenges from Codility.

Round 2: Technical Interview: (45 min)

The interview process was very pleasant experience.

It started with tell me about yourself..., and they asked about the projects that I was part of and if they required using FEM and coding. (Having a decent understanding your CV would be of great help.)

In the later part of the interview they asked questions involving algorithms for implementation of small features of preprocessor functions.

Like element/surface selection form a given node selection, etc. from the data provided at hand.

Important Topics and Subtopics to Remember

Understanding of Fem is a must

Sources of Preparation

- 1.An Introduction to the Finite Element Method by JN Reddy
- 2.First Course in the Finite Element Method by Daryl L Logan

Additional comments

Good problem solving skill.

Cypress Semiconductors

Bangalore

Mechanical/Design

Compensation Offered (CTC) : 9.2 LPA

M.E. Design

CGPA: 8.58

Recruitment Procedure

In single round 3 different panels interviewed me. Apart from 2 or 3 technical questions most of questions are situation based and HR related.

Technical questions:

1. What is supply chain management?
2. What is MRP -1 and MRP -2?
3. What are the limitations of LPP?
4. What is lead time and cycle time?

Situation based questions:

1. If your factory has a capacity to manufacture 100 mobile units per day and you get an order of 10000 mobile units (to be delivered in one week time) from one of your clients, how will you handle that situation?
2. What are the minimum no. of cuts required to cut the cake in 8 parts? (ans 3)

HR questions:

1. Why do you want to work in this field?
2. Don't you think your design engineering knowledge will go in waste?
3. What will you do if you get to choose between the current profile and design profile in our company?
4. What makes you different than other candidates?
5. On which personal thing you would like to work after looking at your past?

Important Topics and Subtopics to Remember

Basics of supply chain management and industrial engineering

Sources of Preparation

Gate notes and internet

Cypress Semiconductors

Bangalore

IT

Compensation Offered (CTC) : 13.2 LPA

M.E. Computer Science

CGPA: 7.47

Recruitment Procedure

First shortlisting round- Aptitude and C output based questions were asked in this round and as other students of Embedded and Design and some other branches were also giving the test they had their own subjects which they had to attempt...Level of the round was INTERMEDIATE...

The role offered consisted of software dev mainly writing code in C for micro controllers and embedded systems specifically here for automotive industry with clients like audi, tesla , bmw. C is best suited for embedded devices as its faster and memory efficient than other languages so C language was the main focus of interviewer

Round 1 Technical (50mins - 1hr)

Started with basic C keywords like static, extern, volatile, register etc (use geeksforgeeks for this) , difference between static global and global variables.

Solution- Static global variables have scope within the same C file whereas global variables can be used among any .C file within the same project.

This was followed by questions on pointers, function pointers their declaration and other pointer related questions.

Some basic linked list based questions , implementation followed by dry run, interviewer asking about some corner cases...Detecting loop etc...Few basic bit manipulation related questions.

Subject related questions from Computer Networks and Operating systems...

Socket programming if done was an added advantage though I told the interviewer I had done just 2-3 assignments on the same so was not that confident...

For ME students all GATE related basic questions on the subject. Prepare the core subjects that you have written in the resume and specifically for this company CN is important.

Round 2 with Director of Software Engineering at Cypress.

Started with introducing myself and 1 or 2 questions about 1 project mentioned in the resume...

Question 1- Puzzle: You have 100 locks numbered 1 to 100 which are all locked initially .. You go through each of them in different iterations and toggle the lock ie if its locked you open it and if its open you close it. Iterations are as follows:



Iteration 1- lock 1,2,3,4,5....100. So after this iteration all locks will be unlocked.

Iteration 2- lock 2,4,6,8... ie in multiples of 2.

Iteration 3- lock 3,6,9,12... ie in multiples of 3.

Iteration 4- lock 4,8,12 ... ie in multiples of 4.

.

Iteration 20- lock 20,40,60,80,100

.

Iteration 100- lock 100...

How many locks will be open at last....

Solution- 10 locks... all perfect squares between 1-100...

We need to count how many times a number comes in all the iterations...For eg take lock number 8 so we need to basically count the factors of 8 which are 1,2,4 and 8 so it will get toggled in iteration 1, iteration 2, iteration 4 and iteration 8 itself so it has 4 factors...Now as it has 4 factors it gets toggled 4 times ie initially lock 8 was closed...In iteration 1 it gets opened then in iteration 2 it gets closed then gets opened again in iteration 4 and then closed in iteration 8...So any number with even number of factors will be closed and only numbers with odd number of factors will be opened at last...So after seeing some pattern and with a hint from the interviewer I came to the conclusion that only 10 locks all perfect squares would be open at last...Took 15 mins for solving this...

This was followed by few bit manipulation questions...

At last he asked about hashing , how its implemented and its advantages .. $O(1)$ avg time complexity for searching,,

After this told that he will connect with Interviewer1 to discuss and update me further...

Final Round 3 Technical (35 mins,, may or may not take place)... This was with a manager for a different department but within the same hierarchy of software unit...

Similar flow and questions as in Round 1 Technical.. C keywords basics, pointers , memory allocation related questions

How to detect whether the system uses Big Or Little Endian format..

Find nth node of the linked list from last without reversal..2 different approaches...

More core subject related questions especially CN and OS covering 30 -40 percent of the topics...

Basic Bit manipulation questions to end with,, Toggle the nth bit of a binary number..

Informed me that HR will now contact although there was no HR round took place

The company directly informed the placement unit at last after Round 3...

Important Topics and Subtopics to Remember

C programming language (every concept especially keywords, pointers and linked list based questions, bit manipulations, CN, OS



Sources of Preparation

Follow the list of important questions (available online also provided by placement unit itself belonging to each topic like array, linkedlist, bit manipulation, graphs, trees, DP (would not be required in most companies)...Geeksforgeeks, youtube

Additional comments

FOR ME students specifically...IF you have not done coding on online platforms before don't start and go for online sites like codechef codeforces etc as these take time and usually followed by competitive programmers going for ICPC or in general but as ME students 1 year before their placement season begins you may not have that much time to follow a procedure which a btech graduate could follow with time being on their side... And for company placements you need some standard set of questions related to each topic which could prepare you well by covering every topic ranging from arrays, linked lists, trees, graphs and DP...

Start with these standard questions from the beginning of your 1st year as the list could be huge and once you are comfortable with the concepts you could then opt for online coding platforms if you have time... Leetcode with its top 100 interview questions and good UI could be the best platform to go with if you are specifically targeting placements...

Cypress Semiconductors

Bangalore

Embedded

Compensation Offered (CTC) : 13.2 LPA

M.E. Embedded Systems

CGPA: 7.56

Recruitment Procedure

Round 1: Most of the questions were from RC,LC circuits,Filters,Opamps(characteristics)schmitt triggers,Setuptime and hold time (30 mins) (difficulty level:medium).

Round 2: Some good conceptual questions from C language were asked(some questions were from linked list and structures) , then round 2 went on mostly with RTOS like syntax for how will you declare a thread,how will you shedule the threads,what is Mutex ,semaphore,parameters present in RTOSconfig.h.(difficulty level:medium)

Round 3: In this round the interviewer focused more on embedded like memory layout of a program,what is the use of start up code,he asked me to explain any 1 project and asked me to explain ,he was drilling questions while iam explaining.

like (what is the memory of your program which you wrote in your project,how exactly the code starts,i used Uart protocol so he asked me frame format,baud rate etc)at last he ended the round with some questions from clippers and clampers.(difficulty level:hard)

Round 4: embedded project +she asked me to explain about the details of the board that i used in the project and why (mentioned that take 5 mins (for thinking) and tell for 10 mins)? difficulty level:medium

Round 5: some hr questions plus some c and rtos questions surprisingly the questions were related to like tell me some famous example for rtos,i explained about mars rover she was convinced .difficulty level:easy

Round 6: Explain me about some project + questions from that project +hr questions.difficulty level:easy

Round 7:Hr round,the interviewer explained me about the pay scale and asking me are you willing to take internship from us something like that...

Important Topics and Subtopics to Remember

Electrical circuits (basics)

analog electronics(basics)

digital electronics(basics)

embedded systems(important)

Real time systems (important)

C language (very important)

Data structures (important)



Sources of Preparation

Geeks for geeks for c language

Embedded systems (class notes)

Real time systems (NPTEL and class notes)

Data structures(geeks for geeks)



Cadence

Pune

Electronics

Compensation Offered (CTC) : 14.7 LPA

M.E. Microelectronics

CGPA: 7.32

Recruitment Procedure

round1- sta, physical design flow, risc processor

round2-physical design flow in detail, tools used in physical design, CMOS inverter

round3- SRAM, projects from the resume, and HR type question

round4- this the HR round very basic question and only try to know you.

Important Topics and Subtopics to Remember

physical design flow, verilog code, projects in the resume

Sources of Preparation

verilog by sengupta sir NPTEL

physical design by udemy course

Additional comments

be confident

Cisco Systems India Pvt. Ltd.

Bengaluru

IT

Compensation Offered (CTC) : 26 LPA

M.E. Computer Science

CGPA: 7.51

Recruitment Procedure

This is how cisco hired at our campus. The entire process took place online, the interviews took place virtually and the following was my experience:

Round 1

- This was an online test conducted on Hackerrank, the duration was 1 hour. It consisted of 15 multiple choice questions from various topics like networking, OS, OOPs etc. with no negative marking.
- 2 coding questions, the languages allowed were C, JAVA and Python (no C++).
- First question was something like this

<https://www.geeksforgeeks.org/find-the-total-guests-that-are-present-at-the-party/>.

- Second one was related to 3X3 sliding puzzle. After this round 40 students were shortlisted for next round.

Round 2

- This round was the technical interview. The interviewer was very friendly and asked me to address him by his first name and then asked me to talk about myself.
- He asked me questions related to my projects and asked for my role in them which I was able to explain clearly. Then he asked me a couple of questions close to my project implementation.
- After that he asked me two DSA questions (just the logic) and the complexities.
- Then he switched back to my resume and asked me about another project followed by a few questions regarding real world problems such as how to store passwords in a database (Ans: Use hashing)
- Finally, he asked me if I had any questions, I asked him about his experience at cisco and he answered it very nicely. After that he asked me to wait for the next round.

Round 3

- This was managerial interview. He also started by asking me about myself and then followed by asking me to explain one of the projects on my resume in detail.
- Then he asked me about my favorite subjects, I replied saying computer networks. So, he asked me what did I like about that and what all I had studied. I told him about OSI stack and different protocols etc.
- Then he asked me a few basic questions from OS which I was able to answer easily given that I had appeared for GATE.
- After that he asked me 3-4 puzzles which I was able to answer with a little bit of help from his side but he was quite happy with my answers.

-
- At last he asked me if I had any questions which I did, he answered and then asked me to wait.
- Round 4
- Finally, I had the HR round. The interviewer was very casual, asked me about my family and future plans. He explained me what the job exactly was about.
 - He then asked me if I had done any projects other than what were mentioned in my resume, I told him about them.
 - He asked me if I knew about any non-obvious cloud platforms (I had applied for cloud application developer) I told him about Google Stadia, he was quite impressed.
 - After that he asked me if I had any problems with relocating and lastly if I had any questions, I said no. He told me the result would be informed by the college placement team and I was done for the day.

Important Topics and Subtopics to Remember

Projects, DSA, Computer Networks, Operating Systems

Sources of Preparation

<https://geeksforgeeks.org>

Cisco Systems India Pvt. Ltd.

Bengaluru

IT

Compensation Offered (CTC) : 26 LPA

M.E. Embedded Systems

CGPA: 7.84

Recruitment Procedure

Round 1: online test:

Had some aptitude and c syntax, Computer network related MCQ. Also had 2 programming questions in language of our choice.

Round 2: Tech Interview:

Asked 2 coding questions - how to rotate the linked list from given node.

Number of ones in a binary representation of a number. Also asked about one of the project on the resume.

Round 3: Tech interview :

Why embedded systems why not web development?

1) Asked how do you sort the huge set of numbers and coding for that.

2) whether the given word is palindrome or not using stack, stored in array

Round 4: Managerial:

Why embedded systems? Etc. Resume related questions.

Important Topics and Subtopics to Remember

Practice coding, Topics: Data structures, Concepts like paging, Virtual memory etc.

Sources of Preparation

Geeks for geeks, Hacker rank coding.

Additional comments

Be you, be confident. Try to go with your own approach than already seen solution in sites and explain the same



Cisco Systems India Pvt. Ltd.

Bengaluru

IT

Compensation Offered (CTC) : 26 LPA

M.E. Computer Science

CGPA: 8.81

Recruitment Procedure

The process started with "PPT" Session and "Coding Test" [consisted of 2 coding questions] conducted across all the three campuses. Around 100 students were shortlisted after the coding round. The interviews were conducted virtually, on the Webex platform.

Round 1: Technical Interview [Around 4 PM]

The interviewer was very polite and friendly. She started with asking me to introduce myself. Then we discussed about the ongoing pandemic situation and then she started with the set of questions:

DSA Questions :

- 1: Trapping Rain Water Problem
- 2: Given two linked lists, find the intersecting node
- 3: Boundary Traversal of the Binary Tree
4. Print leaf nodes of the binary tree

Puzzles:

1. Melting Candles
2. 100 Prisoners with white/black hats

OS Questions:

1. What is kernel?
2. Deadlock and its necessary conditions
3. Virtual Memory, Paging, Segmentation
4. Semaphores, Mutexes and Monitors

CN Questions:

1. Explain OSI Layer in brief
2. Name some application layer protocols, their full forms and significance
3. What is a gateway? Difference between a gateway, router and a switch
4. What is IP, its types, how are they assigned and stuff. (Mostly around DNS and DHCP)

At the end, she asked me "Do you have any questions for me?", and I asked about the Cisco's recent

projects and technologies they are working on, and the interview ended.

Round 2: Technical + Managerial Round [Around 9 PM]

The interviewer started with her introduction and the role she is currently working on. Then she asked to introduce me, wherein I mentioned about my summer internship too which was just finished.

- 1: Tell me 1 good and bad thing about your summer internship?
- 2: How was the overall experience there, and are you expecting a PPO ?
3. Telling yes to the previous question, there came a follow up asking "What if we hire you and you get a PPO from there too?"

I answered "I really stick up to my commitments, and I will be accepting whichever comes first to me". I don't know whether that was a smart move, but I was just being frank.

4. She started asking about the projects mentioned in my resume, to which I was pretty well versed.
5. She also discussed about "Abhigyaan" which I mentioned under "Volunteering Activities" and she was impressed with that, I guess !!
6. Then finally she asked me "Do you have any question?", to which I asked about the Cisco's work culture and work-life balance.

Round 3: HR Round [Around 12 AM]

My turn came around 12 midnight for which she apologised. Also we both were tired this time, she just verified the details like my name, campus name and stuff. She asked me whether I will be available for internship or not. She informed me about the compensation and stipend, and the interview ended.

Around 15-20 students across three campuses were selected.

Important Topics and Subtopics to Remember

DSA (Arrays, Stacks and Queues, Linked Lists, Trees [IMP]), Sorting Algorithms, Operating Systems, Computer Networks

Sources of Preparation

Leetcode and InterviewBit, GFG for theory questions and puzzles

Additional comments

Be thoroughly prepared about whatever you mention in your resume, especially projects, internships etc. Try to be vocal, even if your stuck somewhere. Communicate well and do not fake anything !

Cisco Systems India Pvt. Ltd.

Bengaluru

IT

Compensation Offered (CTC) : 26 LPA

M.E. Computer Science

CGPA: 9.56

Recruitment Procedure

Coding Round

2 coding questions and few MCQ's were asked from Os, DBMS, Networking, Logic, C language. Coding questions were of medium to hard difficulty and we had 1 hour to complete all the sections. We can switch between the coding section and MCQ section.

Round -1

This was a mix of DSA and Projects which I had put in my resume. The interviewer was very friendly, initially, he asked me to explain my all projects that were on the resume within 2 lines of short description. After that, he asked me one easy DSA question which I was able to solve. He told me to share the screen and code the solution I proposed, within no time I solved it and handled all the edge cases as well, he seemed satisfied. Later asked couple of questions from my project work and he was happy with the answers. Lastly, he asked me if I had any questions for him, which I asked and he explained to me in detail.

Round-2

This round was taken by a lady manager who is working in cisco from past 15 years in the collaboration business unit. Initially, she told me to introduce myself and asked me how I managed to maintain such a high CGPA in BITS :p. After that, she asked me a few technical questions and gave me one system design sort of question. I gave three different solutions of the same and she was happy with the solutions. In the end, asked me about my hobbies and what other softwares I used apart from the academic requirements. Lastly she shared her hobbies and asked me if I have any questions for her, which I asked and she explained it in a good way.

Round-3

This was the hardest round among the three rounds I had and it was a very lengthy interview. This interview was taken by the director and he started asking me questions from the projects. First, he asked me to explain in detail the network security project which I did, and while explaining he asked me detailed questions regarding the approach and algorithm which I used. Later we move towards the next project which was a Real-time static scheduler, this was the part where my majority of the interview went. He told me to explain the project and I need to explain each and every term in the project. During the discussion, he asked me to explain the quick sort as I had used it as a sorting algorithm in my project to sort the jobs.



I explained to him the complete algorithm and later sir told me to code the solution and do a dry run on a code with example. I did all the steps and he was satisfied with my explanation. Later he asked me a few more questions on the same project and he was happy with my answers. He also asked me the same question about my CGPA. (i guess hard work gets paid at right time. ;)) Lastly I asked him few questions and he was happy to answer it.

HR round:

This was taken by the lady who first asked me my interview experience, how it went? And was it good experience to get interviewed from Cisco. Later asked me WHY CISCO? After that she asked my preference for the location, and explained to me the package distribution.

So overall it was a very good experience and all the rounds went well.

Few suggestions: Need to know each and everything that you put in the resume, should know the projects thoroughly, and must have good command on data structures and algorithms. And yes I believe CGPA doesn't matter much but it's good to have high CGPA on any day ;)

Important Topics and Subtopics to Remember

Should be able to explain and solve the Data Structures.

Should know the OOPS concepts with example

Have the basic understanding of core CS subjects (OS, CN, DBMS.)

If time permits, can look through couple of System Design Questions.

Sources of Preparation

Leetcode, InterviewBit, GeeksForGeeks, Hackerearth

Additional comments

Make sure to practice white board coding which will be useful in interviews.

Take part in competitions to have that time bound environment to solve the questions.

Whatever you have written in resume should be known to you and you should be able to explain each and every term written in that.

Cisco Systems India Pvt. Ltd.

Bengaluru

Embedded

Compensation Offered (CTC) : 26 LPA

M.E. Embedded Systems

CGPA: 8.38

Recruitment Procedure

Round 1: Technical Interview:

There were two interviewers. They started with a basic design question, then a few c questions and at last some networking questions.

Design question:

1. Design a 4 KB RAM from four 1 KB RAMs.

C questions:

1. Difference between Macros and Inline function.
2. Questions based on combinations of const, volatile, static and extern keywords.
3. Questions based on strings and pointers.
4. Write a C code to reverse bits in a Byte.

Networking questions:

1. Explain 7 layers of OSI model.
2. What do you know about Routing?
3. What is ARP?

Round 2: Managerial Interview:

The interviewer first asked me to introduce myself. Then he asked why I chose Embedded Systems for my masters. Then he asked why I wanted to join Cisco. He also asked a workplace situation based question about what I would do if I had to complete a high priority task by next day all by myself knowing that it is very difficult to complete within the deadline.

Round 3: HR Interview:

The interviewer just asked me the reason for joining Cisco. Then, he explained me the job profile, some workplace policies and compenastion for the job.

Important Topics and Subtopics to Remember





-
1. Basic Embedded concepts - Communication Protocols (SPI, I2C, UART, CAN)
 2. Embedded C concepts - Bitwise operations, Macros and Inline functions, Pointers, Bit manipulation, Usage of Static, volatile, const, extern keywords
 3. Data Structures and Algorithms - Linked List
 4. Networking - OSI Layers, Routing, Important protocols like ARP
-

Sources of Preparation

For basic embedded concepts, class notes and googling important topics would work fine.
For rest of the topics, I prefer GeeksForGeeks.

Additional comments

Practice coding as much as you can. Never stop learning. Be honest and confident during the interview.

Energy Exemplar

Pune

IT

Compensation Offered (CTC) : 10 LPA

M.E. Computer Science

CGPA: 7.58

Recruitment Procedure

Round 1 : Online Test

3 coding questions + MCQs on C#, aptitude, statistics etc.

Round 2 : Technical Interview(1.5 hr)

He started with basic Questions like C++ vs Java, Java vs Python then jumped on data structures, asked me to write some codes which i don't remember.

Round 3: Technical Interview(1.5 hr)

Again DSA and covered database also. He gave me a problem and asked to write the entities, attributes, relationships etc.for that. Don't forget to mention the primary key, foreign key relationships in such problems.

Round 4 : Technical Interview(1/2 hr)

Asked to implement any design pattern of my wish, i implemented singleton and iterator pattern.

Questions on project, since in one of my projects i had mentioned about front end coding so he asked me to write a code on java script.

Round 4- HR Discussion(15 minutes) – Basic HR questions on intro, goals, hobby etc.

Important Topics and Subtopics to Remember

DSA, Data Base, OOPS(specially design patterns)

Sources of Preparation

GeeksforGeeks, hackerrank, Books for C,C++, OS

Additional comments



Be honest with your interviewer, if you don't know an answer, clearly say 'no'. Try to explain the solution while solving a coding problem.

Fiorano

Bangalore or Hyderabad

IT

Compensation Offered (CTC) : 9 LPA

M.E. Computer Science

CGPA: 7.5

Recruitment Procedure

Round 1 : Resume Selection , Round 2 : Technical Interview(45min) - 3 questions were asked and i was expected to write the pseudo code of all the 3 questions, 1st question was on link list in which i have to reverse the sub list of size k and size of link list was n , 2nd question was on tower of Hanoi with some modification , 3rd question was on shortest path from upper left to lower right. Round 3 : technical interview(45min) - 2 question were asked and i was expected to write the working code, and compiler was provided by them, 1st question was on vertical traversal of tree by making use of map, 2nd question was to calculate no of islands in a matrix of 0's and 1's. I was able to write both code.

Important Topics and Subtopics to Remember

Linklist, stack, queue, graph

Sources of Preparation

Geeks for geeks, Leetcode, Interview bit

NetApp

Bangalore

IT

Compensation Offered (CTC) : 13.11 LPA

M.E. Computer Science

CGPA: 7.83

Recruitment Procedure

Round 0: Online Test

This round consisted of MCQs covering a wide range of topics from C programming, OS, DBMS, CN, Time/space complexity, Storage Technologies, Cloud, Data Structures, basic GATE syllabus, etc. There is no negative marking. It was essential to be thorough with the fundamentals of all these topics.

Then there was a coding round that has 3 programming questions from topics like Dynamic programming (Longest Increasing Subsequence), arrays, sorting, and other DSA topics.

Round 1: Technical Interview

First, it started with a basic introduction. Then deep dive into one of the projects mentioned in my resume. Then few programming questions for which pseudo-code and dry run on paint(like software) were asked. Few questions are, Vertical sum of a binary tree, Implementing an LRU cache. Then few OOP questions, which include Run time polymorphism example in C++, Virtual functions, pure virtual destructor, malloc & calloc differences. Few questions on operating systems, that include, the difference between deadlock and spinlock, Implementing a multi-threaded program in C++ or Java.

Round 2: Managerial Interview

This round was more focused on system design type questions, the interviewer was very helpful.

a) The first question, is assuming a server that has 1TB of storage with 4k records. And there can be multiple clients trying to read or write to blocks of the server concurrently. Any client can access 100 records at once say (50 to 150 or 100 to 200 etc... even with collisions). I was asked to design a solution to such a system, the main concept being how would one handle synchronization issues and quick accessing of the records.

b) The second question is, say we have a website www.abcd.com. The website has certain country-specific versions of it say www.abcd.com/in, www.abcd.com/us, etc... The question is when a user from any country clicks their website, the main website count gets incremented(Can be easily thought of as counting the number of views on a specific video). How can such a counting mechanism be implemented properly? Analyze the question, both in the case with website caching

enabled and disabled. And how to compare the performance across both of the versions. The main idea here is again, issues like the following:-

*) When 2 clients access the webpages at once, they read the current value say 5, both of them increment it to 6 and update the value as 6 in the main website. But the actual should have been 7.

*)Also think about what impact the website cache will have.

c) If 10 guys are working with you in a team, and you are not necessarily the leader. If some guy is underperforming for some reason, how would you deal with this situation?

d) Next he asked me how to detect a loop in a single linked list. Then he asked me if two loops are possible in a linked list.

If so how would you remove them?

e) Finally, he asked me for various methods for the nth Fibonacci number. Which include basic recursion, dynamic programming, space-optimized dynamic programming code, Mathematical equation, Matrix-based methods to calculate nth Fibonacci. Then, he asked me, assuming that I know the underlying configuration of my system(memory size, instruction set, architecture, battery limits, clock speed, etc...) how will I pick the best version of the algorithm for this system. He specifically told me to think, NOT in terms of Asymptotic Notation(Time and Space complexity).

Round 3: HR Interview

Started with a basic introduction. Then a few questions like,

Why was there a 2-year gap in my education?

Why was I interested in NetApp?

Do I know the role that I am applying for?

Any interest in pursuing a Ph.D.?

Where do you see yourself after 5 years?

Then finally, the interviewer gave some information about the work culture in NetApp. The interviewer also explained how one can shift the roles inside the company, at a later point in time. Finally, it ended here, and I was given some time to ask any questions that I had regarding the company.

Important Topics and Subtopics to Remember

All GATE subjects(especially Operating Systems, Data Structures, Algorithms, C Programming), and Coding questions. NetApp focuses on topics of Operating Systems, Storage(especially RAID types), and Cloud. It is highly recommended to have a project related to Operating Systems in the resume(like a shell interpreter).

DO NOT FORGET APTITUDE, LOGIC REASONING, PUZZLES, etc...

Sources of Preparation

For GATE: I personally revised Ravindrababu Ravula's Notes. Although any gate notes should be fine.

Also, refer GeeksforGeeks for RAID types and OS.

For Coding: Refer to GeeksforGeeks (<https://www.geeksforgeeks.org/>) if you are a beginner. After that,



you can move on to platforms like LeetCode (no need to get LeetCode premium, instead try to get a DSA course in GeeksforGeeks).

For Aptitude: Please solve as many questions as possible from, RS Agarwal's book.

Additional comments

Please do prepare well for rounds such including Managerial & HR as not just technical rounds and online tests. Also if possible attend a few Mock Interview sessions. Sometimes, it might be that you have done everything right but still did not crack the interview. In such cases, don't get disappointed(it can be due to limited vacancies or any other reason) instead do ask for feedback. Get used to online interviews and few drawing tools. Stay confident and keep working.

Microchip Technology

Hyderabad

Electronics

Compensation Offered (CTC) : 8.5 LPA

M.E. Microelectronics

CGPA: 7.45

Recruitment Procedure

Round 1 : Resume Shortlisting

Round 2 : Written Exam

Basic Digital, analog, aptitude

Round 3 : Technical Interview

It was for the duration of 90 minutes and the panel consisting 4 members from different domains like design, verification and layout. They started with basic of electronics and went deep on the subject. They asked me to write a state machine example (I don't remember exact problem Statement) in verilog. They asked me to write the verilog code 64 bit addition using 1 bit addition instantiation. There were few questions on charging and discharging of capacitors, they gave me a circuit and asked me to draw its output characteristics and so.

Few basic Digital questions.. realising one from other those type of questions

Fifo

Cache

Important Topics and Subtopics to Remember

Digital Electronics basics

Analog electronic basics

Verilog examples

Sources of Preparation

Vlsi expert

Rabey



Mercedes Benz Research and Development India

Bengaluru

Embedded

Compensation Offered (CTC) : 9 LPA

M.E. Embedded Systems

CGPA: 7.07

Recruitment Procedure

Round 1 : Written Test

In total 40 questions in 60 mins. First 10 questions where Aptitude [Quants and DI/LR] and next 30 questions were from Signals & Systems [Linear Time invariant Systems, causality, Laplace and Z transform] , Control Systems [Nyquist plot , Bode plot , Signal flow graph] and Digital electronics[Combinational and Sequential circuits].

Round 2: Tech interview

Panel of 2 members. Intro and I was asked my PS-2 experience at Xilinx .

1. Transpose a $n \times m$ matrix using C programming.
Pseudo code has to be written
2. 3-4 Output questions on Pointers, call by reference from Geeks4Geeks.
3. Few basic MATLAB commands.
4. Regarding my I2C project , explain the protocol and how you implemented using verilog.

Round 3: Managerial interview

Introduction and behavioral questions.

1. Why you want to chose MBRDI ?
2. You're internship in a semiconductor company why would you want to switch to automotive industry?
3. Coding question :
Two different arrays are given in unsorted fashion.
Perform Insertion sort in the first array and perform Bubble sort , merge the array in the resultant array in sorted fashion using Merge sort.
4. Positive professional traits that describes you the best by others.
5. Negative traits told by others.

HR round:

Mostly formal, stay confident.

1. Why is your M.E. 1st sem GPA is extremely low and 2nd sem GPA is extremely high, why is there an imbalance in consistency ?



-
2. Feedback was told about my tech interviews
3. You seem to be too casual and relaxed are you feeling overconfident or you are not serious about the role .

Important Topics and Subtopics to Remember

Practice C programming from Geeks4Geeks thoroughly .
Revise all the undergraduate Electronics concepts (GATE level)
Projects

Sources of Preparation

Same as mentioned above.

Additional comments

Stay confident and answer only the questions you're fully confident.

L&T Infotech

Pune

IT

Compensation Offered (CTC) : 9.5 LPA

M.E. Computer Science

CGPA: 7.89

Recruitment Procedure

Round 1: Written Test which included MCQs from DSA, OOPS, OS, DBMS as well as coding questions.

Round 2: (Technical Interview + HR round) It was based on C/C++ concepts. Interviewer asked to write pseudocode in both C/C++ to check whether I was aware of the syntax. Asked questions on DotNet as the role was specific to it and then some questions on OOPS programming and concepts. At last, asked about the locations I would prefer and some basic HR questions.

Important Topics and Subtopics to Remember

DSA(Most important), OOPS, OS, CN, DBMS

Sources of Preparation

GeeksforGeeks for typical problems(Must) and Last Minute Notes on OS, CN and DBMS, LeetCode and Interviewbit(for competitive preparation).

Additional comments

Be well prepared on all the projects mentioned in your resume. (Mention those projects you are confident about)

Innominds

Hyderabad

IT

Compensation Offered (CTC) : 8 LPA

M.E. Computer Science

CGPA: 7.4

Recruitment Procedure

They conducted only 2 rounds for the selection. First was mcq round based on technical subjects and second was for technical questions with the interviewer.

Round 1 : Questions were primarily based on OOPS, OS, DSA and Computer Networks.

Questions were not difficult and a good reading of standard text books is sufficient. For OS, focus on memory management, threads and inter process communication parts from Silberchatz. For DSA and OOPS, gfg is a must. Reading C/C++ and OOPs related topics from gfg is very helpful.

Questions on FrontEnd web dev technology were asked esp on Javascript and html. I did a proj using these technologies in my RP so I was quiet comfortable answering these. Innominds declared that it has a front end developer profile and hence such questions were there.

Sources of such technologies are many and official documentation is also available.

Round 2 : Questions on same topics were there and were quiet simple if anyone if aware of them. From my RP, React and Redux questions were also asked. Simple applications using them were asked to be made for demonstration. Project done during academics is very important for them to understand technical knowhow of students.

I was expecting call for 3rd round HR or managerial but this round wasnt conducted and final list was declared after round 2.

Important Topics and Subtopics to Remember

OOPS, DSA, C/C++. and technologies learnt during projects. Some awareness of Computer Networks is very much needed.

Sources of Preparation

Standard books, gfg, previous year questions from forums would be sufficient



Additional comments

Interview preparation skills esp communication skills are very important. Politeness, humbleness, strength to accept mistakes with determination to learn more are very much required. Cloud is an emerging are but questions related to this might be rare in interviews. But awareness of current technologies is a bonus. They dont expect you to be 100% perfect but only 2 things : you know what you did in your academics and ability and curiosity to learn more.



GE India Technology Centre Bangalore/ Hyderabad

Mechanical/Design

Compensation Offered (CTC) : 12.5LPA

M.E. Design

CGPA: 8.45

Recruitment Procedure

Round 1 : Written Test (online)

It consisted of 3 sections (Aptitude, English/verbal, Technical). Please note that patterns and topics may differ every time.

Aptitude : It was a moderately tough one and not much time is required to solve them all. Few questions were tricky.

Verbal/Reasoning : Passage based questions, synonym and antonym, reasoning...

Technical : This was the most critical section and questions thoroughly test your basic subject knowledge. You might not require to learn big formulas but should know the basics. There were few questions where formulas were given but as an mcq and apart from that I don't recall any lengthy formula used. Carbon and its properties are also important, thermal cycles and basic understanding in all mechanical subjects.

Round 2 : Interview (Technical)

Prepare well on your resume and subject of interest. Prepare a good introduction as this is required in most of the interviews.

Be confident and if you don't know the answer, it's okay, but don't bluff. There were questions related to things mentioned in the resume, subjects, projects, etc. In technical terms, strength of materials, thin/thick cylinders, thermal, these were few subjects from which questions were asked but it may be different for different interviews.

Expect deep questions from your projects/experiences.

Round 3 : Interview (Managerial)

This is to judge your ability to manage a task, your leadership skills and your team spirit.

Round 4 : Interview (HR Interview)

It will basically test your willingness and motivation for joining this organization.

That's all, all the very best, just stay focused on your expertise and having a long term goal might help. :-)

Important Topics and Subtopics to Remember

Must know (in my opinion) :

- # Strength of materials
- # Thermodynamics and Power Plant
- # Metallurgy/Material Science
- # Some coding knowledge
- # Fracture Mechanics

Rest you have to study the domains you have mentioned or used in projects/work, indicated in the resume. It may be CFD/FEA/CAAD or something.

Sources of Preparation

I prepared through lecture notes, being attentive in lectures as basics are often asked.

Now, since I wasn't having my GATE Preparation notes so I studied via a few short notes on specific topics online.

If you have good notes, that can be helpful and will save you time.

Prepare well on Introduction, try giving mock interviews among your friend circle and see if any part of it needs improvement.

Reach out to your seniors, discuss with them how questions are asked and understand the process.

Stay calm & confident.

ALL THE BEST!

Additional comments

Know about the current technologies in your areas of expertise.

GE India Technology Centre

Bangalore/ Hyderabad

Embedded

Compensation Offered (CTC) : 12.5 LPA

M.E. Embedded Systems

CGPA: 7.35

Recruitment Procedure

Online test:

It had 4 sections, namely English skills which had questions like synonyms, antonyms, rearrangement of words to form sentences, grammar correction and comprehension. Second and third sections consisted of aptitude and logical reasoning and the last section had technical questions from electronics, electrical, communication, control systems, signals and systems, the level of questions was easy to average it was more knowledge based section.

Interview Experience:

Round 1 (Technical): The panel consisted of 2 interviewers, one of them asked questions from analog electronics, digital electronics, digital vlsi and FPGA. The questions were on which characteristics would you select an op-amp, what is slew rate, voltage regulation without use of ICs, high frequency noise elimination in a circuit. What is a weak pull-up and strong pull-up, setup and hold time, what are the effects of setup and hold violation, types of FSM, on what basis would you decide which FSM has to be used, what is button debouncing and how would you handle it, CDC in FPGA circuits, role of PLL in FPGA. The second interviewer asked about C programming concepts like const, static function and variables, volatile, use of volatile and const, how would you swap two variables without the use of third variable and then there were questions on RTOS, what is the difference between General Purpose OS and RTOS, how is inter process communication achieved in os.

Total duration of interview was 30-35 minutes.

At the end of first round I was asked that I had any questions for them, so we had a discussion about the work that an electronics engineer is expected to do.

Round 2 (Managerial): This round was conducted by Asia's leader of EEDP program who delivered PPT, so he asked me being an embedded student was GE my first choice, another question if after 2 years you a call from other companies who are more embedded oriented would you leave GE? He also told about the projects and work culture. He was basically interested in knowing how enthusiastic I was for GE. During this round I also quoted about the recent innovations of GE which told about in Pre-Placement Talk.

Round 3 (HR): HR asked questions about tell me about something which is not there on your resume, how do you do networking, tell any 3 qualities about yourself which differentiate you from other people, how do deal with stress and whenever something doesn't goes the way you expected, last question was a surprise in which she asked me to tell 2 points about dot, in my opinion she wanted to check how do I

deal with this kind of surprise question instantaneously.

Important Topics and Subtopics to Remember

Analog Electronics, Digital Electronics, Digital VLSI design, C programming, Device Drivers, RTOS concepts, Embedded System Design, FPGA basics.

Sources of Preparation

Analog and Digital Electronics- Gate Notes and YouTube.

Digital VLSI design - Kang, Weste & Lectures of Gurunarayanan Sir & Pravin Mane Sir.

C programming - mycodeschool (YouTube) and GeeksforGeeks.

Device Drivers - Devesh Sir's Lectures.

RTOS - Anupama Ma'am's Lectures.

Additional topics which I studied,

VLSI Architecture - RISC from Gurunarayanan Sir's Lectures, Adv VLSI - Anupama Ma'am's Lectures

Embedded System Design & RTS - Anupama Ma'am's Lectures

FPGA - Amalin Sir's content.

Additional comments

If you don't know any particular question in interview in my opinion its better to say I don't know rather than making a wild guess. In technical interview if any question asked my interviewer is from a topic relevant to your project then describe about that project saying that I implemented this in my project and in this manner. Always tell about challenges that you faced during projects and how did you overcome them. Have some hobbies and be confident in them you would be asked how these hobbies have made an impact in your life. Always attend the ppt carefully, by quoting some content from ppt during HR and managerial rounds it would create some positive impression about your interest and listening skills. Lastly be enthusiastic about the organisation it's important that interviewer should feel that you are really interested to work and contribute to the organisation.

NXP Semiconductors

Noida, Bangalore and Pune

Embedded

Compensation Offered (CTC) : 18 LPA

M.E. Embedded Systems

CGPA: 7.35

Recruitment Procedure

Online test: 1.Both subjective and objective type of questions, weightage of subjective questions were more compare to objective ones.

2. Questions based on digital and vlsi design like input and output waveforms were given and we had to implement a circuit using flipflop, implement inverting mux using cmos and pass transistor. Basic questions on STA , cache memory, fifo, transmission gates.

Technical Interview: Question on digital design like difference between latches and flipflops, synchronous and asynchronous circuits. Most of the questions were not direct like we had a discussion on buffers, cmos invertors, STA.

HR round: A small conversation of 10 to 15 minutes. He asked me to rate myself from 0 to 10, about my place where I live, what location you prefer for job, etc.

Important Topics and Subtopics to Remember

Implementation of frequency divider using flipflops.

Static time anaylsis (very important)

CMOS invertors, pass transistor, transmission gates.

Cache memory organization.

Sources of Preparation

1. <http://www.vlsi-expert.com/2011/03/static-timing-analysis-sta-basic-timing.html>
2. Books: Raebby, Kang, Weste (for vlsi design)
3. Gurunaryan Sir lectures for vlsi design and vlsi architectures
4. For doubts, you can refer youtube vlsi channels.

Additional comments



Interviewers may confuse you so be confident what you are saying. Your approach matters more than answering right.

NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Microelectronics

CGPA: 7.32

Recruitment Procedure

Round 1: Written Test 90 min

20 Mcq, 2 Design type Diagrammatic Qs, 5 Descriptive type Qs

Mcqs were from analog, digital, network theory and some part of vlsi design.

Round 2: Technical Interview 50 min

1. Introduce yourself

2. asked mine favourite subjects- told vlsi design, vlsi architecture and cad for ic design.

3. asked about my first project- RISC architecture (why pipelining required, what is throughput, hazards and their solution) and then some discussion on cache memory (direct mapped and 4- way associative)

4. asked about my second project- FPGA related (calculation of logarithm with any base and any number)- I told how I implemented it, some discussion on recursive and iterative method.

5. asked about my third project- D flip flop (setup hold and metastability)- in transistor level schematic (find setup and hold), what is metastability and its consequences and its solution, then some discussion on FIFO and synchronisers.

Round 3: HR interview

Basic questions on family background, schooling, job location, future plans

Surprisingly, some technical questions- SOC design flow, IP design and RTL design, pre and post silicon validation .

Remember: Believe in yourself and CGPA doesn't matter more

Important Topics and Subtopics to Remember

STA, Verilog code, Clock domain crossing, CMOS (in depth), metastability, physical design, RISC CISC and cache, FIFO.

Sources of Preparation

Placement material, Rabaey book, vlsiuniverse.blogspot.com and signoffsemi.com and videos of kunal ghosh from udemy.



NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Embedded Systems

CGPA: 7.57

Recruitment Procedure

Written test:

20 mcqs and 7 subjective questions

Mcqs were mixed of analog, digital, analog was more.

Subjective question : cache miss and hit rate, output frequency of circuit, pass transistor related, CMOS circuits, setup n hold.

Technical interview -(1 hour)

Two guys were their one from analog and one from digital.

1.introduce yourself

2.asked my favourite subjects- told embedded systems and digital vlsi design

3.analog guy showed 2 questions on screen.

Q1.consists of diode and registers I have to tell the output and one input of a gate was floating point

Q2.again analog question related to diode only

Q3. An infinite bitstream is given, design an fsm for detecting whether number is divisible by 17 or not.

Q4.asked number of flip-flops needed to do that

Q5.tell components of state machine

Q6.difference between meelay n Moore.

Q7. One cache related question that I did wrong in test

Q8.setup and hold related questions

Q9. Ring oscillator question

Q10.two puzzles on probability(tough)

I was able to answer each n every question of technical , and one puzzle out of 2 other one solved partially .

Hr:(40 to 50 minutes)

1. Asked questions related to my summer internship at Mathworks

2. Any future study plans.(no)

3. Which profile I am interested in analog or digital (I said I am ok with both)

4. Job location (said anywhere)

-
5. Rest 20 to 30 minutes he was interested in how I got bits, why not iiith and my family background.
 6. Why mtech
 7. Which companies came before
 8. Why I was not able to clear them

Important Topics and Subtopics to Remember

STA, DIGITAL ELECTRONICS, CMOS BASICS, FSM-MEELAY n MOORE, Risc and cisc processors, arm architecture, clipper, clapper, peak detectors, transients, rc circuits, vlsi design flow, FPGA design flow.

Sources of Preparation

Kunal gosh-STA1

vlsi expert

Digital and analog - YouTube lectures of gateacdamey.

Vlsi Architecture and vlsi design - class notes and lectures of guru sir.

Additional comments

Remember : keep smiling and be grateful for qualifying written test and facing interviewer and do believe.

NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 1800000 LPA

M.E. Microelectronics

CGPA: 8.61

Recruitment Procedure

Round 1: Online test

There are 27 questions and 7 need explanations and remaining are MCQ's (no aptitude).

The topics covered are Digital(FSM of sequence generator, divide by 3 circuit with 50% duty cycle, edge detector circuits, draw output waveform for sequential or combinational circuits, boolean equation simplification, counters and the time required, frequency of a combinational circuit output)

Networks(theorems, transient analysis)

Vlsi Design(noise margin, STA analysis setup and hold, CMOS logic, PTL logic, Cache memory(hit rate, miss rate, performance)-compulsory question)

Round 2: Technical Interview

They asked the questions from exam and some digital circuit implementation questions like freq multiplier and some questions on setup and hold and about CMOS inverter and VTC curve (what happens to VTC if length of nmos increases or if width increases).

Round 3: HR Interview

Mostly personal questions about family, job location. And some technical questions like What is DRC, LVS and about SOC and the IP's we used for SOC's.

Important Topics and Subtopics to Remember

DIGITAL, NETWORKS, VLSI DESIGN- Important for any company

Sources of Preparation

digital and networks from gate syllabus. Vlsi design from kang, rabaey and STA from vlsi.expert. After studying kang or weste study rabaey.

Additional comments

about latest technologies and about physical design flow, Asic design flow, FPGA design flow, SOC design flow

NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Microelectronics

CGPA: 8.68

Recruitment Procedure

Round 0:Written test

It had 3 sections.The first section had questions to draw the circuit ,like question to draw inverting multiplexer using pass transistor and CMOS logic and also to write which is preferred over the other and why.Also there was a question to draw positive edge detector circuit for a given input combination.The second section had questions like:

- 1.Find average memory access time for a given hit ratio and miss penalty
- 2.Two circuits were given in which we had to find which circuit has higher frequency etc.

There were no options.We had to write the answer in the blank space provided.

The third section had digital MCQs .It had questions like how delay varies with VDD,input transition and output capacitance etc.

Round 1:Technical interview

There were two interviewers.They asked me to introduce myself.It mainly revolved around the projects I did.

Questions:

- 1.They started with the first project in my resume.Since it was related to FIFO,he asked me where asynchronous FIFOs are used and gave me a problem to calculate asynchronous fifo depth
2. Definition of setup and hold time
- 3.Draw D flipflop and give delays for the gates and calculate setup and hold time and how to fix setup/hold violations.
- 4.Draw an overlapping sequence detector.
- 5.Difference between RISC and CISC architecture.
- 6.Different stages in a pipelined RISC processor.
- 7.How read and write happens in an SRAM cell.
- 8.What happens to stability of an SRAM cell when VDD is reduced and why?
- 9.Questions on pass transistors and transmission gates.
- 10.Questions on STA.

Important Topics and Subtopics to Remember

STA,RISC ,Cache,VLSI physical design,Verilog, VLSI Design.



Sources of Preparation

- 1.VLSI Design:(a) CMOS Digital Integrated circuits by Kang.
(b)Digital VLSI Design by Rabbey.
- 2.STA(vlsi expert website)
- 3.Samir Palnitkar for Verilog HDL.

Additional comments

Be confident and calm while answering.

NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Microelectronics

CGPA: 7.82

Recruitment Procedure

Round 1:written test(online)

test had 27 questions(2 diagram,5 subjective,20 MCQ's)

diagram(student has to make a digital circuit for these questions)

1:input and output pulse was given,actually waveform represents positive edge detector,so we were supposed to make a digital circuit of positive edge detector.

2:two input inverted mux has to be represented by cmos and ptl,and write transistor count for both and which one is good.

subjective

1:power dissipation across transistor needs to be calculated,the circuit consist of nmos,opamp,capacitors,resistors and dc supply.

2:a digital circuit was given,consist of some gates and their delays were given output frequency needs to be calculated.

3:network question,thevenin and norton theorems were useful in this question.

4:cache question,given quantities-cache hit ratio,clock period,penalty cycles,cache access time.average memory access time needs to be calculated.

5:2 digital circuits were given,frequency needs to be calculated,and states of the circuits having max frequency were asked to be written.

MCQ

delay of cmos dependancy with vdd capacitor w/l ratio,bjt-cccs mos-vccs,fifo,capacitor charge sharing,diode questions,staircase questions which gate should be used,number system, counters,glitch,other questions on digital,analog,pass tr. logic,ripple counter frequency calculation,boolean algebra,noise margin calculation.

around 36 sat in written and 15 cleared the written.

round 2:Interview(2 interviewer,45 minutes interview but it went whole 1 hour)

#asked me, tell me about yourself(including hobbies and extra curricular activities)

#asked me my favourite subject,i said VLSI architecture.#so tell me how pipeline is advantageous with an eg. another interviewer joined.#asked me tell me any real life eg of pipeline.

#why pipeline registers are used#can we have 50 pipeline stages,if not why.good discussion on pipeline.#tell me about all flip flops and their properties

#which one is good a latch or flipflop and their difference as well.#do we have latches in flops#in positive edge triggered flip flop which latch will come first.

#tell me how setup,hold time,clock to q comes in this +ve and -ve latch based flip flop.
#threshold voltage and factors on which it depends,short channel effects,differential amp,current mirror,setup and hold violation violations and how we can remove them.
if chip is ready and hold violations are their how i can remove it without decreasing freq.(hold partially dependant on freq so answer related to PVT),verilog code for mod3 counter,
special property about gray counter and how we can make use of it(ans-only 1 bit change in consecutive states),have you done any course on security,do you know cache memory,
how you can verify your code(told him in this sem i will study about test and testability,also i said with testbench for now),small talk on testbench,why initial and # are not synthesible in verilog but are synthesible in C and python.
do you know C,what is buffer overflow in C.
your 10th and 12th are great why you didnt went to IIT's,why not phd,biggest challenge you have faced in your life,any conflicts in your group projects with partners.
tell me in 2 sentences why should i hire you.do you want to ask any questions to me interviewer said.

round3:Hr interview(after 15 minutes i received hr call)
tell me about yourself,your family,what do you know about NXP,why NXP,for how long will you stay at NXP;if you got offer from qualcomm or nvidia will you leave NXP.what do you like most about GOA.
any questions you want to ask me.

Important Topics and Subtopics to Remember

basic device physics,cmos,good knowledge of digital electronics(every topic),basic knowledge of analog electronics(networks,transients,diodes,bjts,mos,mos amplifiers,clipper,clamper),fifo,cache,good knowledge of STA,RTL to GDS2 flow,physical design flow,verilog,testbench,synthesis,good knowledge of vlsi architecture especially RISC and pipeline.
low power techniques.

Sources of Preparation

digital electronics-Gate notes,morris mano,solve DIGI-QS completely(MANDATORY,RECOMMENDED)
STA-vlsi expert blog,youtube videos,another blog include other good topics as well,here is the link-<http://www.signoffsemi.com/sta-part1/>
fifo-youtube,fifo madeeasy pdf,DIGI-QS.
analog electronics-youtube,chembiyan sir's videos,sedra n smith,gate notes as well(whichever source you find simple go through that).
vlsi architecture-gurunarayan sir's videos,if you want see youtube as well.
verilog-only language that is demanded,dont study for just the sake of placements it is very important,study this from your first semester.Nptel,samir palnitkar.
cmos-rabaey.
physical design-youtube,udemy.



Additional comments

include those things in resume in which you are confident and have in depth knowledge.always be calm,take time before answering,dont just rush to give any answer,sometimes if you dont know just say you dont know the answer.concepts should be good,dont mug up things.

in interview you will come across some new questions which can only be solved with previous knowledge and logic.cgpa will help you in eligibility criteria but not in written and interview,never think if you have high cgpa so you will get company in one go.try to do different projects than your classmates that will stand you out from the crowd(with in depth knowledge).

NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Embedded Systems

CGPA: 8.2

Recruitment Procedure

Round 1: Written Test

The written test for NXP not only played a major role in getting shortlisted but also the concepts, the questions were based on, were asked during the technical interview.

There were three sections:

I : We were asked to draw diagrams for given questions. (from analog/digital/vlsi design). (20 MM)

II : Subjective questions were asked (analog/digital). (50MM)

III : MCQs (analog/ digital/vlsi design) (5MM each)

Technical Round:

NXP conducted only 1 technical Round.

They asked me questions on:

TTL , CMOS Inverter (Noise Margin, Region of Operation, Switching Threshold etc.), STA(Skew, Metastability, Setup/Hold Violations, etc.), Temperature effect on MOSFET Power, Buffer(Advantages), Flip Flop Conversions, Clock Domain crossing, ADC, Capacitor Charging/ Discharging (why does it happen, what does it result into, which one's faster..) , why do interrupt/ or any input pin is preferred to be active low etc.

Project(on VLSI design, on FPGA):

Do tell them the corner cases you came across while doing your project and how were you able to solve it. That would be a plus.

HR Round:

General questions like introduce yourself, Why NXP, Why Goa etc.

PS : Most of the questions weren't asked directly. One should be pretty thorough with the concepts. They may give you a question based on any situation and you have to come up with a solution.

(eg: where can you make use of a chip which has violated hold time. The chip has been fabricated and therefore, no changes can be made internally(This was related to the power supply given to a chip)).

They ask you questions from the topic which you weren't able to solve in the written test. So, if you are shortlisted for the interview just go through all the questions, and prepare the topic, they were based on,

thoroughly.

Important Topics and Subtopics to Remember

Vlsi design and Digital electronics (very important),Basic analog.

Sources of Preparation

Gurunarayanan Sir's lectures (for VLSI design).

It's important that you google search topics which you think should be studied in much detail (like STA, Power and Clock gating, etc).

For digital electronics, Gate questions are sufficient (look for digital electronics interview questions on Google. You'll find out plenty of stuff that are actually asked during interview).

Be open to resources available on internet, rather than just going through notes and video lectures.

Glassdoor interview questions might help too.

For analog numerical concepts: Gate academy videos and concepts you learnt while preparing for gate are sufficient.

STA numerical questions : VISI expert.

Additional comments

Technical interview might scare you a bit, but it's not the case when you're actually getting interviewed.

Interviewers are very supportive. They help you to get through questions and come up with an optimised solution. So relax and be confident.

NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Microelectronics

CGPA: 6.9

Recruitment Procedure

Round1: online test :

Design questions like to design a inverting mux using cmos and pass transistor gates

,digital questions

Round2: technical interview

primarily focused on my research practice project which is based on design of SRAM array.

FIFO depth question. Synchronizer concept. Domino logic working. different Power dissipation in static cmos. why keeper circuit is used. Sleepy circuit use. STA based circuit given and asked to find fmax.

Important Topics and Subtopics to Remember

CMOS design, digital logic concepts, cache, RC circuits, RISC, FIFO, Synchronizers, STA, CMOS inverter, CDC

Sources of Preparation

CMOS inverter and combinational logic-Rabaey

RISC, Cache, VLSI design - gurunarayan sir video

RC circuits- chembiyan sir videos

STA- VLSI expert blog

NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Microelectronics

CGPA: 8.55

Recruitment Procedure

Round1: Written Test

There were Descriptive and MCQ type questions. Mostly from digital and a few from analog and Networks.

Round2: Technical Interview

There were two panelist, one from digital and another one from analog domain. They directly enquired about the topic of my interest - I told STA and they immediately fired questions on STA. Entire interview revolved around STA.

1. Name different types of timing paths?
2. Explain each type of timing path?
3. What do you mean by multicycle paths? Explain.
4. What do you mean by clock skew?
5. How will skew impact setup and hold time?
6. What is clock gating?
7. Draw and explain issues in clock gating?
8. Draw comparator circuit using logic gate(only one digital question)
9. Write Verilog code for synchronizing circuit.

Analog interviewer

How good are you at analog?

I told him that I am not that good at analog. So he asked me to explain few of the question from the written paper which I attempted just to check the approach

Round3:HR

First I was asked my intro, my previous job experience etc. Location preference and enquired about my family.

Mostly interview goes the way you steer your conversation so try to avoid jargon that you don't know about. Whatever you speak be sure of it.



Important Topics and Subtopics to Remember

Digital circuits(counters, FSM, etc.)

Analog RC circuits

Network Theorems

Op amps

Setup and hold time

VLSI design

CISC and RISC

Projects

Verilog

Sources of Preparation

Digital circuits

(<https://drive.google.com/drive/folders/19xZtQU5bPqL-ijS8Q1lZmSczhGGP0QJu?usp=sharing>)

These questions are quite good.

Setup and hold time (<http://www.vlsi-expert.com/2011/03/static-timing-analysis-sta-basic-timing.html>)



NXP Semiconductors

Microelectronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Microelectronics

CGPA: 7.68

Recruitment Procedure

Round 1: Written test

It consisted of gate level questions in analog and digital domain there was no aptitude section. There were some descriptive questions and some design questions as well. The paper was overall easy just make sure you solve the unattempted questions before appearing for the interview as they may ask you to solve them during the interview.

Round 2: Technical Interview

There were two people interviewing me one was asking questions focused mainly on my projects and the other one was asking questions fully on analog electronics, he started with all the amplifier configurations in mos told me to draw CS amplifier and do the small signal analysis and find the gain with R_s and without R_s effects of R_s and why to use it, effects of coupling capacitor and its use, effect of parasitic capacitance, what if we use current source instead of R_s , DC o/p in that case, what effect will changing the i/p have on o/p in case of using current source and the gain in that case, frequency response of amplifier and the effect of capacitors on it and which filter does it represent, type of feedback in CS and the feedback factor. I had not attempted one descriptive analog question in the written test he showed me that question and told me to solve it. The majority part of my interview was focused on my projects and he was asking me in depth questions on cache memory controller as it was one of my projects.

Round 3: HR Interview

There was no HR interview for me I don't know why.

Important Topics and Subtopics to Remember

STA, FSM, Counters and Registers, RISC, Memories, CAD Flow.

Sources of Preparation

Digital Integrated Circuits (vlsi design) - Jan M. Rabaey, Neil Weste.

Analog Integrated Circuits- Behzad Razavi

GATE Prep Material

VLSI EXPERT online site for static timing analysis





VLSI architecture course content

R S AGARWAL FOR APTITUDE. Geek for geeks online site for C programming.



NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Embedded Systems

CGPA: 8.9

Recruitment Procedure

Round 1: Online Test

The test had design questions and mcq's based on digital electronics and vlsi design.

Round 2: Technical Interview

They asked about the questions that I did not attempt during the test, questions on static timing analysis like setup time, hold time and different paths considered during sta and on Verilog HDL.

Round 3: HR Interview

Tell me about yourself.

Tell me something about your family.

He asked if I had attend any interview before this, I said yes and he asked why I didn't get selected for that.

Important Topics and Subtopics to Remember

Digital Electronics, VLSI Physical design, STA

Sources of Preparation

nptel videos



NXP Semiconductors

Electronics

Noida, Bangalore and Pune

Compensation Offered (CTC) : 18 LPA

M.E. Embedded Systems

CGPA: 7.38

Recruitment Procedure

Round 1: PPT

This is one of the most important round which is must for every student to attend. It will let you know about the background of the company, their vision, current projects they are working on and the role which will be offered to you once you will be selected. You can expect direct questions related to ppt in HR round.

Round 2: Written Test

Test consists of 27 questions in total which is to be solved in 1:30 hours. 2 design questions, 5 subjective questions and 22 objective type questions.

For design question they asked to design 2:1 MUX using CMOS technology and Pass transistor logic and also compare them on the basis of performance. The second question was to design positive edge detector using D flip flop.

Second set of questions was subjective one which includes question on power calculation in CMOS circuit, basic gate level digital question.

Third set of question was objective which includes basic gate question of digital design, frequency of output waveform, D flip flops, setup time and hold violation and max working frequency, CMOS, analog(biasing) etc.

Round 3: Technical Interview

In technical interview there were two interviewers in the panel.

First Interviewer: It started with the basic question introduce yourself followed by why mtech after btech. Then she asked me to design positive edge detector which was asked in written test as I didn't attend that question. Then I was asked to design CMOS inverter and related question was asked like what are the sources of leakage current, effect of temperature on speed and delay of inverter. After some basic question they shifted to project and asked question related to each and every project. In one of my projects I had used FPGA so basic question on FPGA was asked like what is FPGA and what's its advantage and disadvantage. From project she moved to setup and hold time concept. She asked me to draw two flip flops in cascade and explain setup and hold time violation. Then she asked how to remove setup time violation using buffer and what was its effects on hold time.

Second Interviewer: He asked very basic question on digital design like design half adder, what is the logic of sum and carry. Then some question from test was given and asked me to explain their solution.

Round 4: HR interview

It mostly includes basic HR question like introduce yourself, why NXP, which other companies visited your college, what was there procedure, why you are not selected, what is your CGPA, location preference etc .
HR interview was very chill and all candidates called for HR got selected.

Important Topics and Subtopics to Remember

VLSI - Basics of MOSFET, CMOS ,Static Timing Analysis (Reset and Hold Time), Flip Flops, Buffers, Memory
FPGA architecture
VLSI arch - MIPS Architecture, Difference between RISC and CISC, Memory hierarchy, cache
C , C++, Computer Organization and Architecture
Verilog HDL

Sources of Preparation

Gurunarayan sir lecture videos(for VLSI and Adv VLSI), Books for vlsi- Kang and Rabey, NPTEL lectures, Online materials for COA, Practice competitive coding from geeks for geeks, Samir Palnitkar for Verilog, Gate notes for Digital Design

Additional comments

Thorough with your projects(each and every details), they may ask any questions related to your projects.

PayU

Mumbai, Bangalore Gurgaon

IT

Compensation Offered (CTC) : 18.5 LPA

M.E. Computer Science

CGPA: 7.97

Recruitment Procedure

Round 0: Coding test:

It had 18 MCQ and 2 coding (one of 20 marks and other of 50 marks) questions.

1st was a adhoc question.

2nd was based on maximum sliding window though it looks like dp or greedy approach will work.

Question was like Given an integer array.Find max size of increasing sequence which follows triangular equality.

MCQs were asked from core subjects of CS i.e. OS,DBMS,OOPS etc.

After this, 8 people were shortlisted based on scores for the interviews.

Round 1: Technical round:

The interviewer seemed quite jolly and asked me to introduce myself (just usual formalities). And told me that the round is going to be a coding /problem-solving round. He shared Google docs which contains two questions.

He discussed each question for 30 minutes. He asked me different approaches to solve the question along with time and space complexity for each approach. When he was assured that code can't be optimized further he asked me to write code. Also, I handled all the corner cases properly.

Round 2: Another technical round:

Asked what all projects I have done and then discussed one project. He also asked me many questions both theoretical and coding like how the web URL is processed on Internet, how will you design a system (basically data structure you will use) so that you can allot any vehicle entering parking lot nearest to the parking gate, there is a running stream of zeros and ones arriving in the system- keep taking input until the number so formed from string of 0's and 1's become divisible by 3.



Round 3: HR + behavioral round:

He asked me about my experience during summer internship. She gave me a situation question like there is release of software which is not complete in few days, what will you do whether ask management to extend deadline or let the software to release and make version updates later.

Overall I liked the interviews. At the end they recruited only one candidate.

Important Topics and Subtopics to Remember

Practice questions on arrays,string,sliding window,two pointers.
Revise Operating Systems,DBMS,OOPS and Computer Networks

Sources of Preparation

Leetcode and geeksforgeeks

Pegasystems

Hyderabad/ Bangalore

IT

Compensation Offered (CTC) : 16.5 LPA

M.E. Computer Science

CGPA: 7.94

Recruitment Procedure

PegaSystem came for all 3 campus.

All round are knock-out round.

Round 1: Coding test: [1.5 hours = 90 minutes]

It had 2 Sections. [No Negative Marking]

Section 1 :-

20 Mcqs [40 Points]

(OS Scheduling , DS time complexity ,C, Java, JavaScript output)

Section 2 :-

Three Coding Question (We can code in any programming language C,C++, Java, Python, etc..)

1. [20 Points] In 2D array find number of unique ways from top left corner to bottom right such that product of all the values in the path contains odd number of divisor'
2. [20 Points] I don't remember exactly the question but something related to Divisibility rule of 3 and 6 together with some condition.
3. Triplets in array with absolute difference less than k [50 Points]
<https://www.geeksforgeeks.org/triplets-array-absolute-difference-less-k/>

I solved 2 coding questions completely(1st and 3rd code in C++)

20 students was shortlisted for Technical round.

[5 from BITS GOA + 15 from BITS HYD + 5 from BITS PILANI]

Round 2: Technical Interview:[1 hours = 60 minutes]

1. OOPS Concepts in C++/Java. Mostly they focused java.
2. Three Programs: -
 - (a.) count number of palindrome in a string[character sequence]
 - (b.) Merge Sort

(c.) Intersection point of two unsorted link list. [Which Data Structure best suited if memory storage is not a constraint=>Hash]

3. Two Puzzle

(a.) How to identify Overlapping rectangle.

[<https://www.geeksforgeeks.org/find-two-rectangles-overlap/>]

(b.) Gold Bar for seven days

[<http://www.mytechinterviews.com/gold-for-7-days-of-work>]

Even If I didn't came with exact correct answer, they were looking for my way of thinking and how I approach the problem statement.

11 students was shortlisted for Managerial round.

[2 from BITS GOA + 6 from BITS HYD + 3 from BITS PILANI]

Round 3: Managerial Round:[1 hours = 60 minutes]

1. Why we use OOPS. Advantage of OOPS.

2. How much do I rate myself in Java.

3. How much do I rate myself in DS.

4. Resume Grilled

(a.) Since I had previous work experience. I was asked question related to tools I used in previous company which I mentioned in resume.

(b.) Why I want to go in Software development.

(c.) Research Project(RP); I have published a paper of my RP work.

I was asked AI/ML questions, Challenges I faced in project, Novality of my project.

8 students was shortlisted for Director round.

[2 from BITS GOA + 4 from BITS HYD + 2 from BITS PILANI]

Round 4: Director Round:[1 hours = 60 minutes]

1. Print the Link List in reverse order.

2. Who will take care of stack overflow if base condition is not mentioned in recursion.

3. What is Robotic Process Automation.

4. Difference between Robotic Process Automation and Robotic Desktop Automation.

5. Question on AI/ML related to my research project.

6. How will you do Dynamic/Runtime training of ML/DNN model.

7. Why you left previous job. (Nvidia)

8. Why PegaSystem.

9. Where do I see myself in IT sector career perspective.



10. Do you have any question for me?

7 students were shortlisted for HR round.
[2 from BITS GOA + 3 from BITS HYD + 2 from BITS PILANI]

Round 5: HR Behavioural Round:[1 hours = 60 minutes]

I was asked about GOA. Which places I visited in GOA.

1. Tell me a scenario, where I worked in a team and team members are not cooperating.
2. How will I prioritize my task in work place.
3. Question on my Academic Achievement.=>Btech Gold Medalist
4. Question on my Sport Achievement=>Cricket trophy in Nvidia.
5. Did u remeber the interviewer name from round2, round3 and round4.
6. Question on my Coding Test feedback=> Difficulty level.
7. What is Pega Robotics?
8. Did you know in which team you will be working.
9. Question on Job location flexibilty (HYD/Bangalore)

Finally 5 students were selected.
[1 from BITS GOA + 3 from BITS HYD + 1 from BITS PILANI]

Important Topics and Subtopics to Remember

I will suggest to focus on DS and OOPs concept for pegasystem.
Coming to language I prefered C++ through out my Interview. Since programming language was not a barrier even though they mentioned Java in Job description.

Sources of Preparation

(1. Coding)

I did all my coding practice from geekforgeeks, Leetcode, InterviewBits and Codeforce.
Practicing competitive coding just helped to clear coding round

(2. Must do Interview question)

To crack any coding question in interview. I prepared the "Must do coding question from GFG". Generally, 99% of time this questions are asked as it is during interview.

There is no alternative right now to this part.

If you want to crack technical interview, practice this all question mainly Array, Link list, String

<https://www.geeksforgeeks.org/must-do-coding-questions-for-companies-like-amazon-microsoft-adobe/>

(3. OOPS)

Clear all concepts of OOPs from geeksforgeeks.

Mainly, Inheritance, Polymorphism, Abstraction, etc.. in depth.

I solved all MCQs in C++ from geeksforgeeks.



Additional comments

Apart from coding. Good project increases the chance of selection.

Now a days, ML projects are must in resume.

Select a good guide for RP and do a good project. Projects helped me in all interviews as it gave me a confidence.

I had previous job experience(Nvidia) so it added a value for me along with my academic achievement in bachelor.

Prepare a good resume.

Don't mention the project/Subjects/Skill in which you are not comfortable.

Qualcomm

Hyderabad, Bangalore, Noida, Chennai

IT

Compensation Offered (CTC) : 11.5 LPA

M.E. Computer Science

CGPA: 7.68

Recruitment Procedure

Round 1: Technical round (2 interviewer and interview went on for 1:45 hr)

Firstly they asked tell me about yourself.

Since it was virtual interview they opened hackerrank platform and ask me to write a code there

Q) To copy all characters from 1 character array to another character array (they emphasis to use character array and no string operation)

Q) After they asked me to check if substring is present or not in another string (without using substr or any other predefined function).

Most importantly they weren't seeing coding part but how I am approaching if any errors or warnings are there while compiling and related to that in between they were asking basic questions like do you know what are structures etc.

After this they went into Operating system and first question they ask was - what is system call? What happens when system call happens ?

Some questions on memory management unit and scheduling part

Difference between round-robin and FCFS etc .

Now 2 interviewer came and asked to write a code to turn off 4th bit from LSB? (Bit manipulation) , I code it and they checked it with some test cases.

He didn't ask me any more questions and ask me if I have any questions for them.

Round 2: HR round

It was very casual and formality

She asked me how was my interview and will i be able to relocate and normal stuff , it was very chill.

Important Topics and Subtopics to Remember

Very important OOps , c concepts like memory allocation , structures, unions

Operating system and some bit manipulation questions.

Sources of Preparation

Geeksforgeeks , all interview experience of company.



Additional comments

Be confident, they don't want someone who knows all the answer, but how you approach and handle stress at that time.



Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 11.5 LPA

M.E. Microelectronics

CGPA: 7.56

Recruitment Procedure

Round1: Written test: Digital electronics, basic C programming, aptitude. Important topics for C were functions, pointers, arrays, strings.

Round2: Technical interview1:

1) Questions based on projects. So you prepare all your projects thoroughly.

2) CMOS inverter, Types of power dissipation in CMOS inverter, Short channel effects.

3) When V_{th} decreases what are its effects.

Ans: If V_{th} decreases then the I_{on} current will increase quadratically but at the same time the I_{off} current will increase exponentially. Remember there are billions of transistors on chip so there will be significant I_{off} current. This will kill my battery.

4) Design 2x1 mux using 2 input NAND gate.

5) What is input transition. He took me little deep in this and the way I answered he asked me about noise margin and asked me to explain through graph.

6) Technique to reduce power dissipation. I explained him about clock gating.

7) Questions on TCL, SDC file.

8) You have two nets one having width W other having width $2W$ which will have more delay and why? Also tell about impact on R and C on each net.

Ans: My answer doesn't matter in this question rather my logic about the problem was more of interest to him. So don't worry about the correct answer try to give some good logic.

9) What is setup and hold violation, explain with equation. If my skew is positive it will help me in setup or hold. How will you fix that. Practically how will you fix it.

10) What do you know about Qualcomm. Good discussion on Quick Charge 5 and Snapdragon processor 865+.

11) Why are you so much interested about Qualcomm.

Round3: Technical interview2:

1) Challenges faced in implementation of RISC processor.

2) Asked about other projects.

3) Asked to explain ASIC flow.

4) If you have two pre-placed cells one having 100% standard cell other having 50-50% standard cell. You will choose which one and why, what are their advantages and disadvantages.

Ans: I tried to give my logic, he was OK with my answer.

5)Lastly he asked me about profile I would like to work on.

Round4:HR round:

- 1)Introduction about me.
- 2)Location.
- 3)Why should we hire you?
- 4)My strength

Important Topics and Subtopics to Remember

Vlsi design,Digital electronics,STA,ASIC flow with tools at each step,RISC(very imp).

Sources of Preparation

Rabey, Neil weste,Kang,for digital refer gate notes,Digi_Qs pdf available in google drive link,for sta vlsi expert,PD fresher.

Additional comments

Interviewer are very experienced person,your knowledge won't help them much but they can train you.so parameters they look for is following:

- 1)some basic technical concepts.
- 2)Problem solving skills.
- 3)Your awareness about their organization and your interest to learn and work for their organization.
- 4)They want true person,so if you don't some answer you can say no,but don't bluff.

Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 11.5 LPA

M.E. Microelectronics

CGPA: 8.5

Recruitment Procedure

Round 1: Written test

The test had 3 sections namely: Aptitude, C programming and Digital electronics.

For aptitude of Qualcomm, don't forget to practice passage puzzles. They ask it every year. Go through previous placement papers for it.

In C programming, questions are related to finding result of a given code or find error in it. Some theoretical questions related to C programming were there.

Digital electronics section was quite easy. Questions related to application of K-maps, finding output of given circuit etc.

Round 2: Technical 1 (Interviewer designation: Sr. Staff Design Engineer/Manager, ~15 yrs of experience)
Time allotted: 30 minutes

The interviewer was very polite. He started with asking me a bit about myself first and my interests in VLSI domain then switched to questions.

1. He asked me to write verilog code for a circuit which multiplies a given input by 2 and asked me to design the circuit of it using D-FF and write its code (as i did not use clock in earlier code).
He then asked me to draw the timing waveform of the code.

From the timing waveform, he asked me to define setup and hold time and what lead to setup and hold violations. Then asked me all possible methods to avoid violations.

here he was eliminating the options that I was answering, like he put constraints giving some of them below:

- 1.1. We can't change time period then how to avoid violation, then I come up with solution to decrease combinational delay.
- 1.2. We can't change both time period and combinational delay the how to avoid violation.

Basically he asked Static Timing Analysis in great depth. Was checking till what extent you know.

2. He asked me about my understanding on pipeline, its advantages. Then asked me to divide the 100 ns delay of a combinational logic into 50 ns using pipeline.

3. He then asked me whether I know physical design flow or not. Once I started answering, he switched the question to synthesis.

particularly the questions asked are:

3.1) what is synthesis?

3.2) which tool is used for synthesis?

3.3) Input and output files of synthesis tool and what they file contain.

3.4) How to define clock in constraint file.

3.5) what I like most in synthesis process.

After that, he asked me if I have any questions for him and we discussed about COVID situation at our end.

Round 3: Technical 2 (Interviewer designation: Senior Staff Manager, 15 years of experience) Time allotted: 45 minutes

He started with my introduction first.

1. He gave me a FIFO having 32 locations, 8 bit each and asked me to write verilog code such that it raise flag once FIFO is full.

He was not quite satisfied with my answer and the question was taking time so I asked him for next question.

2. I have to design a circuit/logic which takes two signals clock and reset (reset is such that it is zero for one clock cycle and then switch to 1 for all upcoming cycles) and give output which is a single pulse (which is high one clock cycle after reset is high). I was also asked to write verilog code for the design.

3. Design Full adder using two half adder and draw its circuit.

4. FIFO depth calculation. The read and write speed was given. He then twisted question with adding idle cycles for read and write. Asked about cases of worst write and read to find max depth.

5. Design AND gate using Mux.

Since there was some time left, he asked me to try on the first question again. I was telling him my approach and he was validating it. Finally I got it correct.

After that he asked me if i have any questions and closed the interview.

Round 4: HR Round

HR only asked "Tell me about yourself". He then explained me PS clause and some terms and conditions of company. At last he asked me if I have any questions for him.



Important Topics and Subtopics to Remember

Subjects: VLSI Design, VLSI Architecture, Digital Design, CAD for IC Design (for constraints)

Topics: Static Timing Analysis, Metastability, RTL to GDSII flow including physical design flow, FIFO

Tools: be familiar with EDA tools we use in Lab

Sources of Preparation

Jan M. Rabaey, Lecture videos for Architecture, VLSI expert STA blog,

Metastability, design flow and FIFO from Internet. For FIFO depth calculation google "FIFO depth calculation Made Easy". This document contains all the possible cases to calculate FIFO depth.

Additional comments

Be confident with your answer. Your approach matters.



Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 11.5 LPA

M.E. Microelectronics

CGPA: 8.74

Recruitment Procedure

1) First-round was an online test. It consisted of 3 sections.

Aptitude, C language, and Digital. Aptitude questions included data interpretation, arrangement, speed distance, time work, and some logical questions too. Programming questions were mostly like find the output of the following program, find the errors in the program. It was mainly based on pointers(void and char) and a few questions on enum were also there. The Digital section was comparatively easy. Gate digital questions would have been enough.

2) There were 2 technical interviews and questions asked were

Tech-Round 1

What is your favorite subject. The gist of what you have learned in those subjects. I have mentioned CAD for IC design subject in my resume. So the interviewer asked me to brief about the KL(Kernighan lin) algorithm(I didn't expect this). Working of a MOSFET. Basic Moore and Mealey state machine and writing the state table of it. Implement a 8:1 MUX using 2:1 MUX, if among 8 inputs 3 are don't cares how many 2:1 mux will be needed. I had mentioned a project on RISC in my resume, so was asked about differences between CISC and RISC, pipelining in RISC, hazards in the pipeline. A programming question on how to find a missing number from an array of non-consecutive integers and how will you minimize the time complexity of this. About binary decision diagrams(just basics). Was asked about DFT but that was not covered in my course work so told the interviewer the same thing. One logical question to test analytical ability.

Tech-Round 2

Asked about RISC again. What are the challenges you faced while implementing this project and how were you able to overcome that challenge. Draw a MOD-3 counter and how will you get a 50% duty cycle in MOD-3 counter(timing diagrams and circuit). Extensive power analysis. How to reduce static power, dynamic power. I was asked to write the equation of current in MOS and explain how the static and dynamic power varies by varying each parameter of the current equation. Draw D flipflop using transmission gates, explain the setup and hold in gate level flipflop. Rise time effect on setup and hold. Draw a D latch using a mux. NOR gate using 2:1 mux.

3) HR Interview

It didn't last for more than 10 Minutes. Questions were: Tell me about yourself. Why Qualcomm. Location preferences.



Important Topics and Subtopics to Remember

Static timing analysis, MOS Inverter characteristics, short channel effects, Power analysis of MOSFETS, FSM's, CISC, RISC, Pipelining, basic digital questions (counters, flipflops, conversion of flipflops...). Prepare for all possible questions from your projects mentioned in resume. Pointers in C.

Sources of Preparation

VLSI Circuit Design - Neil Weste and Rabey
VLSI Architecture- Patterson and Hennessy
Some blogs for Static timing analysis
Programming- Geeks for Geeks

Additional comments

Even if u don't answer a few questions, that is okay, but be confident.
Before attending the Interview visit the website of the respective company and get some knowledge about the ongoing research, the latest products released, etc...
ALL THE BEST.

Qualcomm

IT

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 11.5 LPA

M.E. Computer Science

CGPA: 8.14

Recruitment Procedure

ROUND 1 - WRITTEN (2 hours)

SECTION 1 - APTITUDE

Aptitude Question on Time and Word, Distance and Time, Ratios, Mixtures etc (medium but not easy)

SECTION 2 - PROGRAMMING MCQ

Consisted of MCQ on Pointers , functions in C language, OS, CN (medium to hard)

ROUND 2 - INTERVIEW (1.5 - 2 hours)

The interview had two panelists, but the interview was taken by one at a time and back to back

PANELIST 1

Quick Intro and Short description of all projects

1. Coding question on hackerrank live code arena - print nth node from right end
2. Design a system which auto suggests a list of people having mobile numbers starting with the pattern entered by the user. (Auto-completion System). I said it can be done by Tries. He just wanted to know the procedure, what is Trie, how Linked List can be modified to be used as a Trie, but not implementation
3. What are class and instance methods? What are static methods?
4. What is method overriding? If base and Derived have the same named method and if we make any one of them static, what would happen? (He continuously asked will it not give runtime error)
5. 2 Puzzles -
 - a. Given 10 pairs of socks each of them with different designs. You are in a dark room. Without seeing anything, find how many minimum number of socks you need to pick up to be sure that at least you have one pair. (Ans = 11)
 - b. Given 10 pairs of Green, 5 pairs of Blue and 11 pairs of Yellow socks. Under the same conditions as above questions, find the minimum number of socks to be drawn to find a pair. (Ans = 4)

Asked me to explain my answers for the quizzes , how i derived to it. Maybe, because I answered quizzes correctly, i was offered Machine Learning Role.

PANELIST 2

1. What do you know about Qualcomm
2. Explain your work experience in brief
3. What is a node in Linked List



-
4. Write code to create a circular Linked List from scratch. He ran the code and then modified the question to delete a node by value from this LL. He ran the code again for some test cases.
 5. What is Method Overriding. Why is it done? Static and instance variables? Practical Use of Static variables
 6. Normalization in DBMS (explain why is it done and how is it done), Stored procedures
 7. Project Specific Questions (in depth, on the terms written in resume)

ROUND 3 - HR

1. Introduction About the Team
2. Why Masters after Job?
3. What difference do you feel in doing Masters with and without job experience?
4. Key takeaways from work experience.
5. Comfortability with job location and role

Important Topics and Subtopics to Remember

DBMS, SQL, OOP, CN, OS, DSA is must, good to know complex data structures

Sources of Preparation

Geeks for Geeks- must do interview questions (topic wise), College provided notes for OOP, GATE notes for OS and SQL. Coding - Leetcode and InterviewBit (medium and few hard), College provided training material having lot of questions of Coding and session by Placement Unit were best source for Aptitude Training.

Additional comments

Every word written on resume has equal chance to being asked. Try to put things that you know towards top of your resume. If there are sufficient projects (3-4 in my case) and you are able to answer, they won't ask much from rest of the resume.

Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 11.5 LPA

M.E. Microelectronics

CGPA: 8.68

Recruitment Procedure

Firstly, the online test. It had 3 sections - Aptitude, Programming basics and Technical section(Digital, Communication and Programming). I chose Digital. Gate level concepts are sufficient for aptitude. For Digital, practice gate questions and concepts of ME 1st year. C programming basics section had a mix of c snippets outputs, error finding and basic computer architecture questions. Do quizzes in GeeksforGeeks and Indiabix for c programming.

Round 1 (Technical Interview): This started off with a discussion on my projects and their design. I have really emphasized on the motivation and the ways by which I have achieved them at last, and have explained why some features were implemented in a certain way(for example, the burst mode in an SDRAM controller is implemented keeping in view the spatial locality in cache design). Then, questions were on CMOS logic gates, sizing and explanation of all types of power consumptions. Trade-offs in Performance, sizing vs power consumption. Then, there were questions on setup and hold time, transistor level explanation on their origin and negative setup, holdtime, is a positive holdtime better or a negative one. I have also explained the condition to satisfy to avoid data punchthrough on the non-sampling edge of the clock. Then some basic questions on RISC vs CISC and the RISC processor I have worked upon. Some questions on ASIC design flows.

Round 2 (Technical Interview): Again started with discussion on projects in-depth, this time, questions were also on the tools that I have used and some questions on synthesis results(like the area of the design, power consumption etc). Then, there were questions on state machines, mealey vs moore machines, state encoding types, which one is better at which scenario(like one hot encoding has more number of flipflops but no decoder associated, so can result in lesser delays along the paths, so can be used in timing critical designs or where setup is failing). Questions were also on sequence detectors both overlapping and non-overlapping. Then, there were practical questions to design according to certain requirements, improve/modify existing design because of some functional/timing issues(improving timing issues needs knowledge on fixing violations at all stages in design, I kept on fixing issues explaining all possible methods in many cases/stages in design flow). Then, extensive discussion went on clock gating (both AND and OR type), eliminating glitches, performing gating checks etc. Clock and power Gating. Then, some discussion followed on CDC (clock domain crossings), 2,3 stage



synchronizers, mux based synchronizers and asynchronous FIFO. After that fault detection on CMOS logic gates.

Round 3 (HR): This interview was mainly to check communication skills, ability to work in a team. Was asked why Qualcomm ? why not TI or Intel. Why job ? Why not go for a phd. Remember, there can/will be eliminations in HR round too, so give sensible answers here, the HRs are really pros in getting things out of your mind.

Important Topics and Subtopics to Remember

Topics: Digital Design, Digital VLSI, VLSI Architectures (CISC, RISC, Cache, ILP, all hazards, static and dynamic scheduling, basics of VLIW and superscalar architectures), Verilog(all basics, blocking/non-blocking statements, mix of them, inertial and transport delays, casez,caseX,full case,parallel case, verilog event queue, x and z scenarios for all statements), Basic C/Python, Memories (SRAM, DRAM, Flash),Low power design methods. FSMs, CDC(MTBF, Issues and synchronizations).clock , power gating, Skew and Jitter, Time borrowing, fixing violations at every step in design flow, Logical effort, Low power architectures, Elmore delay,Clock divider circuits (divide with odd number but 50% duty cycle, divide with fractional number). Also, do study the sub stages in synthesis (like elaboration, tech independent mapping, optimization, tech dependent mapping), algorithms of Floorplanning etc in addition to design flows of ASIC(RTL to GDSII) and FPGAs. ASIC and FPGA differences too. 2-phase, 4-phase Handshaking schemes, C2MOS(flop insensitive to clock overlap), Arbiters, PLLs, Little Endian, Big Endian and C program to determine whether your machine is Little or Big Endian.

Sources of Preparation

Books: Digital Electronics: Morris Mano. Digital IC Design: Weste, Rabaey(very very important, this book has intuitive design methodologies which the interviewers expect !, study this and Weste in parallel in detail after completing Weste once from course structure). Static timing analysis from Rabaey and from "Static Timing Analysis for Nanometer Designs" by J. Bhasker and Rakesh Chadha, fixing violations can be studied from VLSI expert. Patterson and Hennessey for VLSI architectures RISC (do study deeper topics too), CISC can be studied in brief from Trednick. Study Cache in detail from various sources on internet too. Samir Palnitkar and Cummings ppts for Verilog.Basic ANalog circuits can be studied from sadiku, Neamen Donald. Semiconductor physics from Neamen Donald, Banerjee.

Additional comments

One thing, be confident ! Don't stumble upon something that may make it obvious to the interviewer that you aren't perfect about the topic. It is fine if you tell them that you don't know certain aspects(obvious that this list shouldn't be long !!!). I didn't remember values of few timing parameters that were asked pertaining to my project which I told them and why I don't remember them, but then, have explained it clearly how I have met all the parameters required in design. Remember your performance





will be evaluated qualitatively, not quantitatively. It's not very much about how many questions answered out of how many asked, but about how well you've answered it, conceptual clarity and thinking/ approach.



Qualcomm

IT

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 11.5 LPA

M.E. Computer Science

CGPA: 7.72

Recruitment Procedure

Round 1 : MCQ (section1: Aptitude + Reasoning , section 2: OS+DS+C/C++(Error and output)

Round 2: Technical Interview 1

About Interviewer : My Interview happened virtually so I think it was a new experience for both of us . He was polite and calm. He gave me sufficient time to think and answer all the questions.

As it was online so Qualcomm chose Hackerrank editor for coding questions. Although questions were prepared by Interviewer himself.

Lets start with interview:

Interview started with Tell me about yourself? but without wasting anytime further the interviewer jumped towards Technical Question

below are the coding question asked to me in this round:

- 1) Write syntax of pointer to a function
 - 2) WAP to set , toggle , reset any kth bit in an integer using bit manipulation (expecting one line code for each case)
 - 3) WAP to find square root of a number
 - 4) He indirectly asked me pseudo code of strict alteration between processes
 - 5) Difference between semaphore , mutex vs spinlock (Favorite question of Qualcomm)
 - 6) Give an example where mutex can be used but spinlock cannot be used and vice-versa.
 - 7) He gave me scenario and asked me about the name of problem and its solution
- Priority inversion is the problem and Priority inheritance is solution (Favorite question of Qualcomm)

Round 3: Technical Interview 2

About Interviewer: Interviewer was interactive and friendly. Rephrased question every time when I got stuck but expecting correct answer from me.

Started with Tell me about yourself? and directly jumped to Technical Question

- 1) WAP to return next byte aligned address (Expecting one line answer using bit manipulation)
- 2) WAP to find first repeated character in a string (Expecting left to right and right to left traversal approach)
- 3) WAP to find kth element from last in singly linked list
- 4) Asked about Memory Mgmt unit
- 5) Question was asked on TLB , cache , Main memory and Secondary storage

-
- 6) What will happen if RAM and cache is of same size?
 - 7) How Paging and Segmentation works?
 - 8) Asked about Page Fault and Thrashing
 - 9) What is Page invalid bit and why it is used?
 - 10) Why searching in cache is faster than RAM (if Cache and RAM are of same size)
and some more OS questions
 - 11) As I studied RTS in second semester so he asked some question on RTS
like Difference b/w Conventional OS and RTOS, Hard RT vs Soft RT vs Firm RT
Explain with example

Round 3: HR Round

My HR round last for 10 mins only in which he explained company policies and CTC.

All the interviewer were friendly and supportive.

Important Topics and Subtopics to Remember

Below are the subjects important for Qualcomm:

- 1) DSA
- 2) OS : Process Mgmt and Memory Mgmt
- 3) C and C++

Sources of Preparation

- 1) DSA from GFG (Placement Questions) and Leetcode questions(Easy and Medium level)
- 2) Galvin is more than sufficient for OS and must do Code snippets given in middle of chapters in book.

Additional comments

- 1) Familiarize yourself with Virtual Whiteboard
- 2) Take prior permission from Interviewer for using notebook for rough work in Technical round
- 3) Your explanation should be clear

Qualcomm

Embedded

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 1150000 PA

M.E. Embedded Systems

CGPA: 7.3

Recruitment Procedure

Round 1: Written-test

90-minute test comprising of aptitude, c question mostly code snippet based finding o/p and error and digital electronics questions were asked.

Round 2 and 3: Technical interview 1 & 2.

The interviewer asked to introduce myself.

1) 70% of the interview was based on writing codes. 5-6 logical coding questions based on the application of loop in a linked list, circular FIFO, string rotation, searching and sorting algorithm and addition of element from beginning and nth position in the linked list were asked.

2) Operating systems: Marshall, skeleton, process vs thread, deadlock, virtual memory, multilevel paging and process synchronisation resources like mutex, semaphore, spinlock were asked.

3) Projects: Asked about embedded and device driver projects- what were challenges faced, how did you overcome those, Practical scenarios where your project can be deployed and other basic questions relating to the same.

Round 4: HR

1) Tell me about yourself.

2) why Qualcomm?

3) Asked about my profile preference and what if I don't get that profile?

Important Topics and Subtopics to Remember

DSA, Operating Systems, C programming.

Sources of Preparation



-
- 1) Digital: gate notes, previous year questions and DG_IQS_FULLL book by Srikanth alaparthi.
 - 2) Operating systems: udemy(Vignesh sekar), gfg and operating systems by ravindrababu ravula.
 - 3) Datastructure: mycodeschool, gfg and udemy.
 - 4) C programming: mycodeschool, gfg, interviewbit, practise as much as you can from any competitive programming sites and keep your fundamentals strong.

Additional comments

Think out loud- solve and say out your approach in parallel, this help interviewer to guide you, if you get stuck. Answer confidently and stick to your logic even if the interviewer tries to puzzle you. Have a strong command on projects and fundamentals.

Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 1150000 PA

M.E. Microelectronics

CGPA: 7.58

Recruitment Procedure

Round 1: Written Test

There were three sections

1.APTITUDE 2.Digital Electronics 3.programming MCQ questions

Round 2: Technical Interview

1.write a Verilog code to generate a pulse whose width is of one clock duration

2.Question on FIFO depth calculation(Asynchronous) *imp*

3.Cmos vs Bjt differences

4.Noise Margin for CMOS

5.Question on Etching

Round 3: Technical Interview

It was a fun round. Interviewer was very Interactive

Blocking and non blocking assignment

1.clock gating and a respective Verilog code for that(glitch free circuit).

2.clock domain crossing :- Verilog code implementing cdc for a series of bits

3. Best way to solve hold violations and set up violations

4.design a f/3 circuit with 50% duty cycle

Round 4:HR

He asked me Tell me about myself and why qualcomm?

Important Topics and Subtopics to Remember

1.Clock gating

2.How setup time and hold time is present // complete STA Is important

3.clock domain crossing

4.FIFO depth calculation

5.CACHE types and CACHE coherence

6.SRAM and DRAM working and flash memories

Sources of Preparation



<https://www.edn.com/understanding-the-basics-of-setup-and-hold-time/>

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

Additional comments

have a clear understanding on the concepts you read!

Qualcomm

Electronics

Hyderabad, Bangalore, Noida, Chennai

Compensation Offered (CTC) : 1150000 PA

M.E. Microelectronics

CGPA: 8.33

Recruitment Procedure

Round 1: Test

The test comprised of digital electronics questions, aptitude questions and C programming language questions. The difficulty level for digital electronics was easy but for the C programming language, it was from moderate to difficult. A lot of pointers related questions were asked. In the digital electronics section counters and shifters were asked along with some state machine questions. The difficulty level for the aptitude questions was moderate.

Round 2: Interview 1

The questions asked are as follows.

- 1) a problem statement was given if a signal is high then the output must remain high for a single clock pulse and asked to write a Verilog code for it.
- 2) next question was about fifo depth calculation.
- 3) Design a full adder using two half adder.
- 4) question on etching related ICFT.
- 5) static timing analysis related questions such as how to solve setup violation and hold violation.

Round 3: interview 2

Questions asked are as follows.

- 1) interviewer asked to design and a verilog code a clock domain crossing design for a series of beats.
- 2) design and verilog code for synchronisers.
- 3) he asked me question on clock gating concepts and told me write a verilog code for integrated clock gating cell.
- 4) best ways to solve hold violations.

Round 4: HR interview

Interviewer asked to tell him about myself and gave a brief info about company's policies.

Important Topics and Subtopics to Remember

Digital electronics.

Static timing analysis.



Clock domain crossing,
Synchronisers .
Physical design.
Cache and it types and working.
Memory management unit.
Memories.
A strong command on verilog language.

Sources of Preparation

<https://www.edn.com/understanding-the-basics-of-setup-and-hold-time/>

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

<https://vlsiuniverse.blogspot.com/>

ServiceNow

Hyderabad, Bangalore

IT

Compensation Offered (CTC) : 2965745 PA

M.E. Computer Science

CGPA: 8.14

Recruitment Procedure

Round 1: Technical Interview

(2 people in the panel)

Easy and Medium level questions can be expected from leetcode. I was asked Valid Parenthesis, Two sum, and several language proficiency questions on C, C++, SQL(only because I mentioned I knew this).

Round 2: Technical Interview with Behavioral questions

(2 people in the panel)

Expect good medium level problems. I was asked Boundary traversal of a tree, Longest Common Substring, List all Anagrams of a string, and a modification of the same. I was also asked about other CS concepts such as multi-programming and multi-tasking, threads and concurrency. I was asked about previous projects where I showcased my website. I think this was the deal breaker because I displayed various projects (system side, data science and web based projects) and clearly saw the excitement in interviewer's tone upon seeing the website. He asked whether this was made using JavaScript and what all frameworks did I use.

Round 3: HR + Technical

(1 person in the panel)

This round started with questions on previous projects that I did. I could tell that I was being tested whether or not I could explain the things in simpler terms. I gave a quick summary of what all projects I did, what was project about and what were the challenging parts. I was asked to describe myself, which I did in non-text-book fashion. A few points from CV but majorly something CV can not show. I communicated about being versatile and proved that by projects in various domains. I told how I managed the stressful situations and how I carry on when there is too much on the plate. I was then asked a Hard problem of leetcode, Trapping Rain Water, and its modification which was, how to solve it if the ground is porous (i.e. water will not stay where the value is 0).

In all the rounds I had to code and describe the complexity, which one can automatically say once in practice.

Important Topics and Subtopics to Remember



2 pointer, Strings, DP, Trees

Sources of Preparation

Leetcode (problems), Geeksforgeeks (language concepts and puzzles)

Additional comments

Be clear and straight-forward while conversing. Stay relaxed in the interview. The panel is friendly and professional, they will guide you if you get stuck somewhere. Have water, paper and pen with you. Explain in easier terms. Use keywords where necessary. Showcase your work (whatever you have had done by now). If you have done web based projects, make sure to mention it.

ServiceNow

Hyderabad, Bangalore

IT

Compensation Offered (CTC) : 2965745 PA

M.E. Computer Science

CGPA: 9.03

Recruitment Procedure

Round 1 : [Technical with 1 interviewer in panel] [Approx. 45-55 minutes]

Introduce yourself

Zigzag tree order traversal

Initially gave 2d vector approach by storing the whole tree and then reversing

Then moved onto do it in single pass using queue

Was stuck initially(nervous) but kept explaining where I was stuck, was dropped an indirect hint of which 2 data structures are opposite of each other and got stack and queue as the answer. And then implemented the algorithm using 2 stacks.

Important point here was to keep saying my thought process and dry running my approach on the example the interviewer gave.

For all the different approaches, explain the time complexity and space complexity with reason and make sure the interviewer is satisfied with the reasoning.

What sorting algorithms do you know? Gave mergeSort, InsertionSort, BubbleSort as answers [Only answer those for which you are sure. Note that I didn't mention quickSort].

In 1-2 lines, define each algorithm and characteristics. [In-place sorting or not etc]

Explain best case, average case and worst case complexities for each with reasoning.

When do you use which sorting with reasoning. [E.g., For a nearly sorted array, insertion sort is preferable as it gives $O(n)$ with minimum swapping to be done compared to mergeSort etc.]

OS questions:

What is process and thread?

Differences b/w the both.

When to use which?

Was given a scenario and had to explain why multithreading would be useful rather than spawning multiple processes.

Lastly, asked the interviewer about his journey at ServiceNow.

Round 2 : [Technical with 2 interviewers in panel] [Approx. 70-75 minutes]

Started with their introduction. Wasn't asked to introduce myself.

First interviewer started with asking if I know chess? With a chuckle, replied back that I haven't played chess but do know the basics of chess. The question I believe was slightly changed at this point and was asked if given a source point and destination point in an $M \times N$ grid, what is the minimum number of hops

required for my knight to reach from source to destination.

Explained initial approach in a 2d matrix table. And then was asked to write production quality level code. [Note everything from dry run to final code was done on online microsoft word document].

Lasted for around 30 minutes and then another interviewer took-over.

Second interviewer glanced at my projects and saw that I worked on RESTful APIs. and then asked me to design a cafeteria system with REST API approach for their Santa Clara office. [Daily/Weekly menu, availability of dishes, order placement etc]

The focus here was how I think of different entities, different use cases of the API, how futureproof URI design is and how it all connects to the DB with keeping scalability in mind.

Was completely grilled to the point where I ran out of things to discuss further.

Finally was asked the difference between REST and SOAP and why you prefer REST.

Asked both the interviewers about their experience on the services and products they have/are currently working on and some doubts about their architecture I saw from the PPT earlier.

Round 3 : [HR with 1 interviewer in panel] [20-25 minutes]

Introduce yourself.

Impact of Covid-19 overall on each person in different positions and how keeping a healthy attitude towards the situation is helpful.

Had mentioned one of the research project that was based on real time indoor localization using wifi I completed last semester and was asked how I worked on it, given Covid situation, what were the effects on the project deadlines and how it was concluded etc.

How the BITS Goa environment gave me a new perspective on academics as well as on a personal level.

Asked a technical question on binary trees, where how to change the structure of the tree so that from a leaf node using pointers one can reach the root node. And the time complexity in different cases with explanation.

Finally, I asked some company products related questions and about their hyderabad office.

The entire interview process lasted for about 7-8 hours. Keep calm in-between the interviews and give your best shot. Don't panic. The interviewers are always trying to help you during the interview by dropping hints.

Important Topics and Subtopics to Remember

- Data Structures

Arrays, Stack, Queue, Graphs is must

Bonus: Trie, Segment tree etc and their use cases

- Algorithms

All different sorting algorithms with their usage in different scenarios is must

Problems where greedy and dp both can be utilized (E.g., Coin change)

Bonus: Backtracking paradigm

- Object Oriented Programming Concepts

Java preferable as most companies still has >90% codebase in Java

If comfortable in C++, make sure to know differences b/w C++ and Java from OOP perspective.





Sources of Preparation

For problem solving, use InterviewBit and Leetcode.

- InterviewBit: Good most commonly asked interview problems but UI and discussion is weak
- Leetcode: Good UI and great discussion forum for each problems (friendly community)

Use GeeksforGeeks for different solutions that can be applied to same problems. (From $O(n^2)$ to $O(n)$ or even $O(1)$) and reading articles.

Additional comments

Make sure to know about the company and their different product lineups and recent news of the company.

Sona Comstar

Gurugram, Manesar - Haryana & Pune

Mechanical/Design

Compensation Offered (CTC) : 650000 PA

M.E. Design

CGPA: 8.08

Recruitment Procedure

Round 1: Online Test:

Basic MCQ questions from core subjects e.g. Thermodynamics, Strength of Materials, Manufacturing etc.

Round 2: Technical Interview:

Question 1: Describe yourself.

Answer : Mention your name, academics while touching upon extra-curricular activities. Try to emphasize on your strengths e.g. if you are a quick learner, mention it confidently.

Question 2: Tell us about any of your projects.

Answer : I chose my most recent one but try to choose one which shows how you fit into the company. Describe it with enthusiasm.

Question 3: Tell us about your final year B. Tech project (since I had talked about a different one).

Question 4: Would you have any problem coming to Gurgaon?

Answer : Do not show any form of hesitation in this case as this question is very commonly asked.

The interviewers were very warm and polite and engaged in a general conversation.

Important Topics and Subtopics to Remember

Brush up on core subjects from B.Tech and know your resume well. Be confident.

Sources of Preparation

GATE notes, Indiabix

Tejas Networks

Bengaluru & Gurgaon

Electronics

Compensation Offered (CTC) : 1000008 PA

M.E. Microelectronics

CGPA: 6.93

Recruitment Procedure

Round 1: written test

Consist of aptitude and technical questions.Total 60 questions for 1 hr.

Round 2: Technical interview

Duration : 45 mins

It started with the project I mentioned in the resume.

Design and working of Dff.why we use ff instead of latches because latch has smaller size compared to ff.

What is the setup time and hold time of the ff u designed.

What is the max frequency with which your ff can run?give equation

Convert your ff to frequency divider (by 2). Now what is the max frequency it can be operated with?

What is

Basic analog concepts were asked.

Working of basic electronic devices like bjt ,diode,mosfet. Different types of diodes. Clippers and clampers.

A circuit was given and I was asked to explain it's working and use.

Zener diode uses.explain it's working with graph.

Round 3: Technical interview

Duration :50 min

What are different types of memory.

Different types of RAMs.

Explain and draw sram and dram.

What is DDR 1,2,3,4

Multicycle path.false path .Write Verilog code for 3*2 multiplier.

Verilog code for ALU.

A circuit was given and I was asked to write sdc command to satisfy some criteria given.

One input and one op waveform was given and asked to design circuit to generate op waveform.

One question from fifo depth calculations.

Glitch and crosstalk .how to remove.

A circuit was given (having FF)and input clock was given .what Will be the op waveform.



Clock divider Verilog code

Important Topics and Subtopics to Remember

Memory classification,sdc commands.

Verilog,Basic electronics mosfet ,bjt etc. Cmos inverter.

Sources of Preparation

Vlsi expert,Kang,weste,Rabaey

Additional comments

Be confident on what ever you answer.

Your approach and attitude matters not your answer. Have a smile on your face through out.Keep one thing in mind - What if you get rejected?

The world is not gonna end .You will definitely be placed in some better company.



Tejas Networks

VLSI

Bengaluru & Gurgaon

Compensation Offered (CTC) : 1000008 PA

M.E. Microelectronics

CGPA: 8.34

Recruitment Procedure

Round 0: Ppt

Round 1: Written test (objective MCQS)

There were around 30 questions (1hour) and it contains only one section with mix of aptitude, digital , analog, networks questions.

Round 2: Technical interview 1

It was around 45 min interview in which only one interviewer was there. She started with my basic introduction and then she started with questions like :

FPGA draw architecture if possible,

how you divide clock in different regions inside FPGA

Write verilog code of an ALU

What is tristate buffer, in-out buffer,

which is having less delay synchronous counter or ripple counter,

what is distributed RAM/ BRAM,

difference b/w latch and FF,

difference b/w memory and FIFO. She also asked some design questions in which waveform was given and asked to design the circuit. She was also interested in analog part also so make sure to have some basic knowledge of analog like opamps, MOS, diodes etc

Round 3: Technical interview 2

It was also 45 min with one interviewer was there. Initially internet connectivity was not good and i was not able to heard his any questions, but do not panic at that time and tell them clearly that i am not able to jear you properly. So he started giving me some numericals problems (8-9 questions) which test knowledge of zener diode(voltage regulator), opamps, setup hold numerical practice is must, generate a clock using 2*1 mux, min. number of NAND gates for an expression, design 8-bit DAC numerical , design expression using CMOS .

Round 4: HR

It was just a formal interaction with the mam, asked about family and then told me about their

organization. It was a chill round actually i enjoyed that one .

Important Topics and Subtopics to Remember

FPGA knowledge is must, STA numericals, basic analog is also must like opamps, MOS, basic digital specially verilog

Sources of Preparation

verilog from NPTEL indranil sengupta IIT Kharagpur, FPGA from Reconfigurable computing course slides are enough, for analog solve conceptual gate questions of opamps they test virtual ground and comparator property by purposely giving negative feedback in it.

Additional comments

Don't panic if you are not able to crack interviews. It was my 5th consecutive attempt , i was eligible in all companies before and cleared written test in all but my interview cleared in 6th one. Its also luck dependent so give your 100% and leave rest on luck.

Tejas Networks

Electronics

Bengaluru & Gurgaon

Compensation Offered (CTC) : 1000008 PA

M.E. Microelectronics

CGPA: 8.21

Recruitment Procedure

Technical Interviews:-

Round 1- Asked questions related to finite state machines, flip flops and counters. Also checked my knowledge regarding FPGA, Static Timing Analysis and Verilog. It is very important to practice problems in digital design as the interviewer gave me waveforms and asked me to design a circuit for it.

Round 2- Was mainly focused on the projects that I had done on FPGA. The interviewer went into deep discussion on my project in Reconfigurable Computing and asked me to write a part of verilog code for it.

HR round:-

This round went smoothly as interviewer just asked questions about myself and whether I was comfortable in relocating to any place that company offers.

Important Topics and Subtopics to Remember

Digital Design involving flip flops
Static Timing Analysis
FPGA (Very important)
Verilog

Sources of Preparation

Verilog- Nptel Lectures
VLSI Design- Kang, Rabaey and Neil Westie
Digital and Analog- Practice previous years Gate papers
Static Timing Analysis - vlsi-expert.com

Tejas Networks

IT

Bengaluru & Gurgaon

Compensation Offered (CTC) : 1000008 PA

M.E. Computer Science

CGPA: 8

Recruitment Procedure

Round 1: Online test

It was a 1 hour round containing technical and aptitude questions. Technical question was from networking, os and data structure while aptitude questions were from topics like distance and time, work and percentage.

Round 2: Technical Interview 1

In this round they have tested the technical question from core computer science subjects including DS, Networking, operating systems and OOPs.

Questions that I remember are:

1. Difference between mutex and semaphore
2. Quicksort working and complexity cases
3. Abstract class, pure virtual function
4. extern in c
5. How socket works
6. IP header
7. TCP/IP model
8. Difference between process and thread
9. Some question related to kernel. firmware and packet flow in tcp model were asked.

If you have revised the CS subjects mentioned above you should be able to crack this round.

Round 3: Technical Interview 2

This round was to check the coding skill of the candidate

1. String reversal program
2. OOPs program for inheritance, virtual function. Interviewer asked me to write in C++.
3. Program to traverse like below pattern in 2D array

00 01

10 20 11 02 03

30 40 31 22 13 04 05

50 60 51 42 33 24 15 06 07

60 70 61 52 43 21 11



You can just figure out the whole pattern from above one.

4. Number of substrings present in the string



Important Topics and Subtopics to Remember

Networking OS OOPs



Sources of Preparation

geeksforgeeks, leetcode



Additional comments

Package may seem low for Tejas Networks but you will be getting really good and challenging work here.



Tekion

Bangalore

IT

Compensation Offered (CTC) : 2500000 PA

M.E. Computer Science

CGPA: 8.81

Recruitment Procedure

Round 0 : Coding Test

Test was of 1 hour 15 minutes.

There were MCQs based on OOPS, C(mostly pointers) and DBMS.

There were 3 coding questions of different difficulty levels.

One of the question asked was given two strings s1 and s2, make s1 a palindrome string containing s2 as substring. Only replacement operation can be used. Then what is the minimum operations required.

Round 1 : Technical Interview

1. Given two nodes in a binary tree, find the least common ancestor of the two nodes.
2. Given an array, print all the elements that are greater than all the elements to its right. I was also asked to optimize the solution I gave.
3. Given a binary tree and a node, print the inorder traversal of the tree (both recursive and iterative solutions was asked).

OOPS : What is abstraction, interfaces, difference between abstraction and interface, encapsulation, abstraction and inheritance. Also provide examples of each in real life and was asked to write a sample java code for some of them.

DBMS : What is hashing and its types. Why is indexing used in DBMS.

Round 2 : Technical Interview

1. Given a time represented in the format "HH:MM", form the next closest time by reusing the current digits. There is no limit on how many times a digit can be reused. You may assume the given input string is always valid. For example, "01:34", "12:09" are all valid. "1:34", "12:9" are all invalid.

Input: "19:34"

Output: "19:39"

Explanation: The next closest time choosing from digits 1, 9, 3, 4, is 19:39, which occurs 5 minutes later. It is not 19:33, because this occurs 23 hours and 59 minutes later.

2. Suppose we have a room with n bulbs, these are numbered from 1 to n , arranged in a row from left to right. Initially, all the bulbs are turned off. At moment k (for k in range 0 to $n - 1$), we turn on the light $[k]$ bulb. A bulb changes color to blue only if it is on and all the previous bulbs (to the left) are turned on too. We have to find the number of moments in which all turned on bulbs is blue.

3. Explain any one of your project and follow up questions based on that.

Round 3 : HR

1. Introduce yourself.
2. Why do you want to join Tekion?
3. What skills can you provide that will be useful in Tekion?
4. Do you want to know anything about the company?

Important Topics and Subtopics to Remember

Mainly OOPS, DSA and Algorithms and some DBMS. For online test prepare C concepts very well especially pointers.

Sources of Preparation

For OOPS Geeks for geeks is the best source.

For DSA and Algorithms : Interview Bit, Leetcode and Geeks for geeks (Make sure you do all the frequently asked coding questions from geeks for geeks).

Additional comments

Know the projects in your resume very well.

Tekion

Bangalore

IT

Compensation Offered (CTC) : 2500000 PA

M.E. Computer Science

CGPA: 7.86

Recruitment Procedure

Round 1:

The interviewer had a good attitude, but no extra helping or prompting or anything like that.

Started out with pleasantries, and dove right to data structures first.

I was expected to write code for all the below programs:

A) Separate 0s,1s,2s in an array (no extra variables, space, $O(n)$, only single traversal (You can find it on GFG))

I took some time as I had practiced this for 0s and 1s and I got a bit confused.

B) Given range in array $1 \dots n$ (LeetCode)

1. Find duplicate and missed number (No extra space, Linear time)

Variant 1 : You can change the array (LeetCode)

Variant 2 : You cannot (LeetCode)

You can find these 2 on LC top 100 list

Variant 3 : Find frequency of duplicated number too (Haven't seen before)

I was quick on V1,V2 as I had seen them before, V3 I had to think on spot and the interviewer was happy with the code I wrote.

C) Minimum sum Level of a binary tree (LeetCode, pretty straightforward, answered using queue)

Next was some CS theory type questions. He saw my projects on Database(In 3rd year of Bachelors, but I remember it quite well so he asked follow up questions from DBMS because of that)

B vs B+ tree

Indexing questions

Small discussion on OS :

Mutex vs semaphore

One easy question on semaphore.

Odd even print using two threads.

Round 2:

(More of a managerial round but with added coding twist)

Detailed discussion on all projects in CV.
Describe challenges faced in your recent project
How I overcame them.
Now this was the twist, I felt it was a really tough question and got genuinely scared.

You are given a string, Find all subsequence which are not a substring in non exponential time.
But he helped a lot, really a lot. Guided my way to the answer. It was more of a discussion here. I don't remember the source it was probably codechef (I might have even put up the question wrong here a bit, but it involved using bit-masking and FOL a bit)

Then there was a small discussion on what his team does.

Round HR:
Just the basics! Basically it was just asking if I would be okay with doing my PS with them.

Important Topics and Subtopics to Remember

Data Structures, DP (I did not practice much DP and got out of Amazon interview because of a simple Knapsack variant) , OS

Sources of Preparation

I frequented about 200 questions from LeetCode, mostly the top 100 lists for interviews, and top 100 liked questions.

Also lots of discussions of questions from GFG, InterviewBit questions which my peers were solving so that helped me vary my focus to other interesting problems.

I made a Trello board to keep a track of questions I found great, and collected all the good discussions there to revisit.

Additional comments

If you have a lot of time, do participate in CodeChef and Codeforces contests. They help a lot with problem solving skills.

I found it better to focus on the standard programming stuff during placements (2-3 months before the process starts).

Teradata

Hyderabad / Pune

IT

Compensation Offered (CTC) : 1360617 PA

M.E. Computer Science

CGPA: 7.58

Recruitment Procedure

Round 1: Online test(60 minutes)

20 MCQs in 60 minutes, topics included C/C++ output based questions, Computer Organization, Operating Systems, Data Structure and Algorithms

Remark: Difficulty level - medium

Round 2: Interview(60 minutes)

Topics: DS/Algo

Question: Maximum contiguous subarray sum , how to approach and why?

Round 3: Interview(60 minutes)

Topics: DS/Algo

Questions:

1. Merge two sorted linked-lists
2. Reverse individual words of a sentence, like "I have a pen." to "I evah a nep."
3. Nth Fibonacci number

Round 4: Engineering Manager interview(60 minutes)

Topics: Projects, Networking and cryptography, system design

Questions:





-
1. Explain project
 2. How does the Internet work?
 3. Public and private key cryptography
 4. Some questions from past work experience, like what tools and technology I used and what I learned
 5. Design a weather monitoring app to know the weather conditions of a city

Round 5: HR interview(30 minutes)

Questions:

1. Tell me briefly about yourself and your family
2. Tell me about your last job experience and why did you decide to pursue masters
3. What are your short and long-term plans?
4. Do you want to ask anything regarding the company? I asked about possibility of switching departments and teams later on

Important Topics and Subtopics to Remember

Linked List, DP, Strings, Networking, OS

Sources of Preparation

GeeksforGeeks, Leetcode, hackerrank

Teradata

Hyderabad / Pune

IT

Compensation Offered (CTC) : 1360617 PA

M.E. Computer Science

CGPA: 7.19

Recruitment Procedure

Round 0: Online Test

This round consisted of MCQs covering a wide range of topics from C programming, OS, DBMS, CN, Time/space complexity, Data Structures etc. The weightage per question varied from 2 to 6 marks with no negative marking. It was essential to be thorough with the fundamentals of all these topics.

7 people were shortlisted for interviews.

Round 1: Technical Interview

This round tested my basics of programming/debugging as well as C, OS. It was conducted by a Senior Engineering Manager with over 15 years of experience with Teradata. A code collaboration link was shared to type in the answers/code examples/output. A few questions about my Taship were asked. Majority of the questions were around C programming (Debugging, Predicting the Output, Pointers) & OS (Synchronization, Multithreading, Deadlocks, Memory Management). There were a few Coding questions too (E.g. Implementing a substring remover function) which focused mainly on the approach part of it rather than any language specifics (I didn't face any hassles despite primarily coding in Java). A few questions about my knowledge about the company were asked too. Also one of the questions was about comparing some data structures as well as comparing C & Java on various parameters since I kept stating about my comfort with coding in Java :). I asked a few questions about the various roles available as well as the opportunities/challenges within each role. She was very friendly and helping in the few cases where I got stuck.

4 students got shortlisted for the next round.

Round 2: Technical Interview

This round was more focused on the DS/Algo part of it. The interviewer introduced himself first & gave a brief but detailed overview of the company. He was a Senior Cloud Engineer with more than 3 years of experience with Teradata. My preferred programming language was asked and upon knowing it to be Java, a few basic OOP questions were asked too. He then asked me a very basic 2-number sum question which I explained in no time covering all possible solutions as well as edge cases with the time as well as space complexities and the tradeoffs between them. The 2nd question was more of a design principles-oriented question rather than an actual coding one where I had to write a production-level code for checking if a given string is a valid mathematical expression or not. He was more interested in how I tackled this problem by breaking it down into smaller logical sub-problems rather than the syntax

specifics of it. The solution he expected was a lot more different than I came up with since it had something to do with breaking down the validation in terms of the Phases of Compilation which I was not even remotely close too :P. I asked a few questions regarding the specifics of Cloud Division of Teradata w.r.t. the tech stack, project and recent challenges due to Covid-19. The interviewer was very friendly & interactive throughout.

3 students were shortlisted for the next round.

Round 3: Engineering Manager Interview

This round was a Managerial round with a Senior Engineering Manager in the Advanced Analytics department with over 3 years of experience with Teradata. This round was more focused on my project on full-stack development using JavaScript frameworks and PostgreSQL Database. Various questions revolving around the project like the reason for selecting SQL over NoSQL, Database schema used, Routes for the backend server, possible real-life applications of your project, APIs used and their reason/working were asked. Also, some scenario-based questions extending my project scenario were asked e.g. Load Balancing, Managing a humongous amount of writes etc. were asked. Finally, I was asked to state the subjects I covered in my Masters till now and which one did I like or found the most intriguing. I mentioned about Pervasive Computing. In the final QnA part, I asked him about his division work and the challenges encountered as well as the opportunities therein.

All the 3 students previously shortlisted moved forward.

Round 4: Director Interaction

This round was an interview with the Engineering Director of Teradata. I was mostly asked scenario-based questions around my TA work as to how did I handle challenges, how did I convince the students in case of disagreements, what did I learn and how did it change me as an individual etc. Similar questions were asked about working in a team on group projects. Another interaction was about my SWOT analysis & how did I manage to overcome one of my nagging weaknesses. Also, I was asked about my openness to work for different roles such as Testing, Quality Assurance, Customer Interaction, Product Manager, Data Engineering etc. if given a chance; though he stated that the current hiring process was predominantly for a Development role. Also, I was asked where do I see myself 5/10 years from now and what changes do I see in myself w.r.t. the responsibilities as well as the skillset and soft skills i.e. how do I see myself grow as an individual etc. This round was unique to me as it wasn't conducted for the other 2 shortlisted candidates after EM round :)

Round 5: HR Interview

This was the final round interacting with a Talent Advisor with over 2 years of experience with Teradata. He asked about the feedback for the selection process so far if any improvements could be suggested. Then I was asked to introduce myself and a few questions were asked about my educational as well as family background. A few more questions similar to the previous round i.e. what process did I follow to develop a skill previously unknown to me and what resources helped me in achieving that. I mentioned about learning Java :). Questions regarding the ongoing Covid-19 scenario as well as the openness to work with all possible departments were asked. I asked him a few questions about what did he find different with Teradata as opposed to Amazon working with Talent Acquisition and the newer challenges/opportunities presented over here.

Finally, the results were announced on the next day and 2 of us got selected from the Goa campus and I was one of them :)

Important Topics and Subtopics to Remember

OOP, DSA, OS, CN, DBMS, C programming, Comp. Arch.

Sources of Preparation

GeeksForGeeks (MCQs, Basics of DSA and core CS subjects), InterviewBit, Leetcode (Both for coding practice).

Additional comments

Please do prepare well for rounds such as Managerial & HR as many people overlook this part in favour of technical aspects like DSA, Coding & core CS subjects. I myself didn't prepare that well for these rounds.

Also, be as upfront as possible, avoiding fabricating too much stuff.

Another advice would be to take rejections in your stride as positively as possible. Honestly, it wouldn't have been possible to crack this company without having alongside a thorough preparation, an invaluable repertoire of interview experiences with some of the top firms like Cisco, Qualcomm, Oracle, Tekion, PayU etc. Though there would always be a sense of disappointment of not bagging these companies, the learning experience is far more priceless to be sulking upon such rejections. And life indeed is really stupendous & awesome to provide enough good opportunities to be grabbed, one must just keep working hard & not lose hope or be shattered due to such setbacks. Also, the selfless & heart-warming support & help from my classmates & seniors throughout placements was nothing less than a life-granting oasis in the midst of a desert-like challenging placement scenario :)

Wabco India Limited

Pan India

Mechanical/Design

Compensation Offered (CTC) : 700000 PA

M.E. Design

CGPA: 8.18

Recruitment Procedure

Round 1: Group discussion:

Topic given: BSNL vs other private telecommunications

Tips: Be relevant with current scenarios, Don't crisscross on your ideas, Make sure you have proper body gesture, Have some stats if possible, Don't directly say you disagree with someone instead try some powerful terms like "I beg to differ with you but" .

Round 2: Aptitude (General + Technical):

General: Will be very easy to solve but time management is important.

Tips: Don't think too much on a single question if you don't know the answer.

Technical: Gate portions majorly SOM, Refrigeration systems, Materials, Machine tool, Springs.

Round 3: Technical interview:

Tips: Revise your resume throughout, Make sure You know nook and corner of what you have done in your projects. Know about the company and the projects that they are currently involved in. In technical part concentrate on subjects like SOM, Machine tool, Materials and some aptitude. Add mechatronic and Robotics projects in your resume if done.

Round 4: Psychometric assessment:

Tips: Simple, don't have to prepare separately. Just agree, disagree questions.

Round 5: HR interview:

Tips: Short term and Long term goals, Questions like why do you want to join this company, Are you willing to relocate if needed.

Important Topics and Subtopics to Remember

SOM, Materials, Machine tool, Robotics, Manufacturing.

Sources of Preparation

Internet, Gate notes

Western Digital (WDC)- Sandisk

Bengaluru

Embedded

Compensation Offered (CTC) : 2117550 PA

M.E. Embedded Systems

CGPA: 7.57

Recruitment Procedure

Round 1 : Written Test - question from aptitude, embedded, vlsi, C

Round 2: Technical Interview - my interview was conducted by a panel of two first they asked about me and my background and then asked me what all projects i did and then he asked one by one in detail about each project from embedded, vlsi, device drivers and RC.

then other person asked me questions on electronics both analog and digital.

Round 3: HR - In this they just asked all HR related questions.

Important Topics and Subtopics to Remember

should know each and every detail of your project and should be through with your concepts of vlsi, digital, analog and C programming.

Sources of Preparation

gfg for C programming, gate notes for digital and analog,

Western Digital (WDC)- Sandisk

Bengaluru

Electronics

Compensation Offered (CTC) : 2117550 PA

M.E. Microelectronics

CGPA: 7.71

Recruitment Procedure

There were total 5 Rounds of Interview that was conducted by WD.

Round 1: It was a Technical Round. Question were simple and basics related to the projects and memory. They asked me about each and every projects that were mentioned in my Resume, so you should have a clear understanding of all the projects that you are going to mention in your resume. Next, they asked about memory like SRAM, DRAM, EPROM, Flash, and Floating Gate Transistor.

They asked me to draw and explain the working of 6T SRAM. Explain the difference between SRAM and DRAM. Explain the Working of Flash and Floating Gate Transistor.

Round 2: This round was a not Technical but more of your thinking ability. The questions were like SRT(Situation Reaction Test) means they had given been some situation in which I am stuck then how can I make my way through it. There will be no correct answer in this, they will only see the approach.

Round 3: This was a Technical Round. The Questions were related to Digital Electronics that you have studied during your BE. MUX related questions, FSM, Difference between Moore and Mealy, they have given me some random sequence and asked me to detect it either through mealy or moore machine. Question related to C programming were also asked in this round like what is the output of the following code. Lastly, he asked me 2 Logical reasoning questions which were also good, again in these type of questions they will only see the approach. They will also give you some hint, you have to just catch those hint correctly.

Round 4: This round were both technical and reasoning. In technical he asked me about the projects and asked what all problems did you face in implementing this project and how did you solve those problems and what will try to do more in this particular problem if given more chance and more resources.

Reasoning Question was only to see your thinking ability.

Round 5: This was a HR round. In this Round he asked me about my strength and weaknesses. Job location and some question related to my hobbies.

Important Topics and Subtopics to Remember

You Should have very clear knowledge of all your Projects. Since, it is a Memory company so you have to prepare Memory related topics very Well like, 6T SRAM, 3T and 1T DRAM, EPROM, EEPROM, Flash, Floating Gate Transistor, DDR, SDRAM.

Also prepare C programming, this would be beneficial even for your written tests.



For written tests prepare C programming, VLSI Design(CMOS inverters, Pass Transistor and STA related questions), VLSI Architecture(CISC and RISC), Analog and Digital Electronics.

Sources of Preparation

For Analog and Digital Electronics GATE notes will be enough.

For VLSI Design Refer Rabaey book(Chapter 3,4,5,6).

For STA, VLSI expert is the best site you can cover almost all the topics from there.

For VLSI Architecture Prof. Gurunarayanan Lectures will be enough but try to watch all his lectures, don't miss out any lecture.

Refer Prof. Gurunarayanan lectures for Memory also, he has covered all the portion of memory in detail, so it will be good.

Western Digital (WDC)- Sandisk

Bengaluru

Electronics

Compensation Offered (CTC) : 2117550 PA

M.E. Microelectronics

CGPA: 8.47

Recruitment Procedure

Round 1: Written-test:

There were 4 sections: Aptitude, Electronics, Basic programming, and firmware. Questions from aptitude were of basic level from topics such as profit/loss, work and time, etc.

Electronics contain digital and analog questions which were from topics like flip-flops, counters, sta, Mosfets, etc.

Basic programming and firmware may contain a few very easy questions from Verilog, VLSI architecture, etc.

So make sure to go through all of them once.

Round 2: Interview: I was interviewed for the RISC-V Verification profile.

So they 1st asked me to explain completely about the RISC processor. I've explained to them its architecture and all the pipelined stages it goes through.

Next, they gave me a design problem for a token counter. It was like a a token is issued for customers in queue then the customer waits for his turn to get the work done then he does the work and leave the place.

Sequence detector state machine, delay question on verilog hdl , synthesis conversion of behavioral code to netlist. Eg - converting code to muxes and gates.

What is generate bitstream, Random number generation logic.

Ripple up counter verilog code with instantiation from jk flipflop.

Questions on designing a testbench and Challenges I faced during projects

Remember complete Logic of assignments you mention to them.

Hr round : one year experience of BITS , and experience of my b.tech college, What is your dream profile, Do you think you are fit for the role, why western digital, why are you moving so far from north India to south india .

Do it together/ make it happen and think big What resonates most with you ??

That's all

Important Topics and Subtopics to Remember

For Digital profiles - Basic Digital electronics, Basic VLSI Design , SRAM, DRAM, FIFO, Cache memories, STA basics, Physical Design, Basics of FPGA, RISC Processor, Verilog HDL , Prepare all these topics and solve previous papers of companies to come.

Sources of Preparation

Cmos Digital Integrated Circuits Book by Sung-Mo Kang and Yusuf Leblebici
CMOS VLSI Design: A Circuits and Systems Perspective Book by David Harris and Neil Weste
<http://www.vlsi-expert.com/>
https://www.youtube.com/channel/UC6VmaCm26Bi_eAHa7bE1poQ
- for significance of STA
Class lectures
Digi qs PDF
Verilog HDL by Prof. Indranil Sengupta Youtube lectures or book by samir palnitkar.

Additional comments

For Interview-
Don't beat around the bush , If you need time ask for it then think and answer , Don't just answer for the sake of it, Tell them if you don't know something, Try to speak the topics in which you are most comfortable in.

Western Digital (WDC)- Sandisk

Bengaluru

Embedded

Compensation Offered (CTC) : 2117550 PA

M.E. Embedded Systems

CGPA: 6.7

Recruitment Procedure

Round 1: Written Test

The written test was on Codility for a period of 1 hour . The number of questions were as follows: Aptitude (10),Electronics (15),Programming (10),Firmware (10).

I had attempted programming,firmware and aptitude sections and some questions in electronics section. For programming, C MCQs from Geeks For Geeks were very much helpful. Some questions were directly taken from Geeks for Geeks. For Firmware, Questions from concepts of RTOS, Embedded Systems and somewhat Device drivers were there. Aptitude questions were moderate.

Round 2: Technical Interviews

Total 5 rounds of Technical Interview were there.

Technical round 1: It was generic.First I was asked to introduce myself. The interviewer was very friendly. He gave me some scenario and asked me to design an embedded system. eg. While manufacturing and SSD, what all factors should I consider? If I want to make a smart tag, what features it should have? Will it need memory? How will I design a pulse oximeter which can take 3 inputs simultaneously? What problems we can face in such design? How will I debug a product if a consumer has some complaint about it? etc generic questions.

Then he asked me some RTOS concepts related to deadlock,priority inversion.

Technical round 2,3,4,5,:

Project Related: Put projects relevant to the profile in resume.You should know the projects you have put in your resume really well. What protocols you have used in the projects (with detailed steps with configuring registers etc. for using that protocol), the APIs used along with arguments(specially in RTOS project),IDEs used etc. They can cross question why you have done something in your project in a certain way. What is there in the startup file of LPC, how are the memory mapped registers defined in startup file,What is the processor in the boards you have used ?

C : For C,Geeks for Geeks is a must. Do all MCQs on C language from GFG. (Many times companies directly take them from GFG.) In Western Digital Interviews they repeatedly ask questions on Bitwise operations.Questions asked: About Keywords volatile,static,const etc in detailed with application, c

programs : find loop in linked list, Divide 32 bit number by 32 without using mod operator, bubble sort, linear search, find whether the number is power of 2 or not using bitwise operations, write a macro to toggle a bit, How to allocate 2D memory, find number of 1's and 0's in a number efficiently (in least time possible), If you have a large stream of data coming in, how would you store and access it reverse order in least time possible (Answer: Stack). Difference between constant pointer and pointer to constant, and have you used it in your projects? Have you used union in c anywhere? They also showed me some code snippets and asked me the output.

Embedded Systems: ARM architecture explanation , ARM modes, what happens when interrupt comes, example scenario when particular ARM modes are entered, difference between I2C and UART, cache related questions, about SRAM, DRAM

RTOS: mutex vs semaphore , deadlock, critical section, priority inheritance etc related questions.

Device drivers: questions related to the project , what is SCSI.

In round 4 and 5 they asked some HR type questions also. (eg. many people from your college has written the same project for Device driver, so it is easy for people to copy each other's code, will people in your college do that? Are you ready to relocate? etc)

Final Round : HR Round

This was like a casual discussion. Why this firmware engineer role? Where do you want to relocate given a preference? Then the HR told me about 3 values of WD and asked which of them is important to me and why, about my previous BE college, The difference I feel between my previous college and BITS etc. Try to show you are adaptable , a team player and ready to learn.

Important Topics and Subtopics to Remember

C: uses of static, volatile, const, extern. Bitwise operations, Structure bit fields

RTOS: critical section, priority ceiling protocol, mutex, semaphore, priority inversion, priority inheritance

Embedded Systems: Protocols like I2C, UART, SPI, ARM architecture and modes, what happens when an interrupt comes (answer in terms of SPSR, CPSR), what is Interrupt vector table

Device drivers: If you are putting project in resume, then related to that

Sources of Preparation

C language: Geeks for Geeks C MCQs on all topics (Must do), for coding practice can try hackerrank, leetcode (easy, medium level questions)

Data structure basics: Youtube. Search of applications of each data structure like circular queue etc.

RTOS: IIT Kharagpur NPTEL lectures, some part from Udemy course

Embedded Systems: NPTEL lectures for ARM, class notes, protocols and their uses from internet, memories

Device Driver: Class notes



Additional comments

The important thing that I observed is: In interview even if we cannot tell correct answer, the interviewer gives us hints and sees how we think . Sometimes, It is not the correct answer/solution that is important but the approach. So, even if some question you are not able to solve, don't just give up. Look for the hints, and let them know what you are thinking atleast.

Western Digital (WDC)- Sandisk

Bengaluru

Embedded

Compensation Offered (CTC) : 2117550 PA

M.E. Embedded Systems

CGPA: 7.22

Recruitment Procedure

Written Test:

For the written test there were 4 sections: Aptitude(10), C Programming(10), Firmware(10), Electronics(15). In Aptitude the questions were from Time and distance, age problems, finding average, probability etc. The questions were easy. In firmware, basic embedded related questions were there. C programming section had questions related to structures, operator precedence, bit fields, pointers etc. In electronics section questions were from digital electronics and analog circuit. Questions were basic level, from the topics op-amp, MOSFET, basic gates, IC Fabrication, FSM, pass transistor logic etc.

Interview:

There were 4 technical rounds and 1 HR round.

Following are the questions asked in all the technical interviews:

Each interview was started with one of my project. As I applied for firmware profile, they were interested in the projects of only 3 subjects, Embedded system design, Real Time System and Device driver. They asked me so many cross questions while I was explaining my project. So be absolutely thorough with the projects you mentioned in your resume. Apart from project they asked so many questions from C programming, like explain function pointer, why do we use function pointers, what is volatile keyword, what is the behavior of volatile const variable, difference between constant pointer and pointer to a constant, static variable, static function. They also gave me some C code snippets and asked what will be the output.

Difference between mutex and semaphore, Difference between mutex and binary semaphore, Process vs Thread, Explain boot loader process, What happens during context switch between threads.

C code to check whether given number is power of 2 or not, Toggle kth bit, Find no. of 1s in binary form of a given no., Binary search algorithm, Insertion sort algorithm

Data structure: Check whether there is a loop in a given linked list, Check further if list is a circular list, Circular buffer and its applications

What is NAND Flash, what are the operations performed on it, Difference between NAND and NOR Flash

HR : Introduce yourself, Asked me the names of previous interviewers, How many companies you applied for and why you did not get selected,

Where do you see yourself after 3 years, Why WDC, Family background and all, Asked to explain one of



my projects

Important Topics and Subtopics to Remember

Learn C Language very properly, Data Structures, Bitwise algorithms, OS concepts, Sorting algorithms, ARM architecture, Device driver basics, RTOS, Communication protocols like SPI, I2C, USB etc.

Sources of Preparation

For C refer Geeksforgeeks, For Data structures and sorting algorithm refer mycodeschhol channel on youtube, To have better understanding about embedded system you may refer the courses on udemy by fastbit academy.

Additional comments

Mention only those projects on resume that you actually worked upon, Think about the challenges you faced during the project and how you dealt with them. Be confident and keep smiling during the interview.

ZS Associates Pvt. Ltd.

Pune, New Delhi, Bengaluru

IT

Compensation Offered (CTC) : 1278000 PA

M.E. Computer Science

CGPA: 8.6

Recruitment Procedure

Round 1: First round is written test. In this there are multiple MCQs related to Data Science and ML and one coding question. The coding questions was not regular DSA question. Its related to maths. Coding question is simple but there are some edge cases in coding which need to be solved with proper attention. I solved most of the MCQs and all test cases for coding question

Round 2: After first round there is resume shortlisting as well. So need something related to Data science in your resume. Any projects you worked on or kaggle competitions add them to your resume. Second round is a presentation round. In this they asked me to make a PPT about any Data Science related project I worked on, what are the issues I faced in that project, what models I used. There are two interviewers in this round and they young. So they asked me lot of details regarding the project based on hyper parameters, math behind those models. So prepare well about the project which you are going to present. It went around 45 mins.

Round 3: This is a technical interview round. There is one interviewer in this. He is very friendly and interactive. He started with some personal questions and then moved on to technical part. All questions are related to ML mostly. As I did Deep learning he asked me some DL questions too. Be prepared for some open ended questions like given a problem statement which ML model you would choose, how you decide on hyper parameters, which activation functions you select etc ,.

Important Topics and Subtopics to Remember

ML , DL

Sources of Preparation

Kaggle , ML/DL courses, Towards Datascience articles, YouTube.

Oracle Corporation

Bangalore/Hyderabad/Noida

IT

Compensation Offered (CTC) : 2801398 PA

M.E. Computer Science

CGPA: 7.39

Recruitment Procedure

Round 0 (Written round): -

All questions were mcqs with time limit in each section. There were different sections like aptitude, logical, reasoning, os fundamentals, data structure and algorithm, dbms queries and normalisation questions. Questions were easy, but time was really less in each section. There was no negative marking.

Interview rounds:-

All rounds were technical based. Also some questions were asked on how to handle deadlines and what would you do in different given scenarios.

Round 1 :-

Discussion on projects in detail. Discussed a similar question related to the project. My projects were mainly on data science. So further discussion on AI, ML algorithms, NN, DL, and differences between them. Examples and algorithms on supervised and unsupervised algorithms were also asked.

Round 2 :-

Discussion on everything mentioned in the resume including certificates, projects, CS fundamentals learned during gate preparation and TA ship. Some basic questions on computer networks, os and dsa were asked. Some questions were asked as which data structure should be used for different scenarios. Eg - for storing file systems, trees are used.

Round 3 :-

We did code on inheritance, multiple inheritance, bubble sort, selection sort, implementation of stack and stack using 2 queues. And some theory question on oops and dsa were asked. Some puzzles on clocks and speed time distance were asked to solve. Then discussion on advantages of using python over other languages. Also some basic questions on python like lists, tuples, dictionary were asked.

Important Topics and Subtopics to Remember



DSA, OOPS, OS, Aptitude, fundamentals on CN and DBMS

Sources of Preparation

Geeks for geeks, Hackerrank, leet code.

Additional comments

Prepare everything mentioned in the resume in detail with examples. Be honest with the interviewer.



Oracle Corporation

IT

Bangalore/Hyderabad/Noida

Compensation Offered (CTC) : 2801398 PA

M.E. Computer Science

CGPA: 7.33

Recruitment Procedure

There were 3 Technical rounds:-

My primary programming language was C++.

Round 1:

In Round 1, Interviewer asked for my introduction, and he made sure that I was comfortable. Then he moved ahead towards basic questions from Object-Oriented Programming: Topics like Inheritance, types of inheritance, Polymorphism, encapsulation were covered.

A coding question based on the reversal of LinkedList, there was an online platform where you can write the code, and the Interviewer can view it.

This round went for 30 minutes.

Round 2:

In Round 2, the Interviewer asked about my previous work experience and basic information about my projects. Now he moved to the coding question and asked me to share my screen.

The problem statement states that you have to print the count of repeated words. For this question, I was provided with a sample string.

Round 3:

In Round 3, I was asked to choose the language of my choice, and coding problem statement was given to me. Given a string abBAaaB, if bB (small letter and character capital letter) appears, then remove both bB. Now the new string is aAaaB; now, keep doing this until you have the minimum number of letters remaining. Print the remaining string.

The next question was based on Unix. Display the complete directory structure with a list of files and subdirectories on the screen.

Another question is based on Unix. Now your task is to write the command in a single line that will visit every directory and read .log files and find whether a null character exists inside that file. Print the names of such files.

I couldn't solve this problem, but I did explain my approach towards solving it.



Important Topics and Subtopics to Remember

Bit Manipulation, Arrays, String, Trees, LinkedList Hashing, Dynamic Programming

Sources of Preparation

Geeksforgeeks (<https://practice.geeksforgeeks.org/batch/ppc-1>) , interviewbit





Oracle Corporation

Bangalore / Hyderabad

IT

Compensation Offered (CTC) : 2801398 PA

M.E. Computer Science

CGPA: 7.67

Recruitment Procedure

Round 1: Online Test: The Online test had multiple sections which were timed. The sections covered all the concepts from CS Fundamentals to General Aptitude and Logical Reasoning. There were MCQ questions in each section. There was one question presented on the screen, and we were not allowed to go back and forth. Topics covered were OOPS, C, Quant, LR, OS, DBMS, CN. The main key in this test was time, and each question had an average of 1-2 min. So use it very wisely, don't get stuck on one.

Round 2: Technical Interview: The majority of this interview was about OOPS concepts, so be well versed with the concepts and its applications.

DSA Questions that I was asked to code, complete code with libraries, and main function.

1. Find kth element from the end in the Linked List
2. Implement 3 stacks in an array.

The interviewer asked me about memory management concepts in Operating System (Segmentation and Paging), Deadlock.

Q: What is the difference between `const char *p` and `char const *p`?

Q: Types of Hashing?

Q: Deletion in a BST?

Q: What is the Volatile keyword and where is it used?

Q: Copy constructor?

Q: How can a user be restricted from making an object using `new`?

Q: Basic OOPS concepts such as polymorphism, inheritance, etc

Q: Inline Functions?

It is good to know Java, as they work extensively on it, but it is not mandatory

Round 3: Technical Interview: This interview was taken by a senior person, and it lasted for about 1 hour 45 mins. The interviewer asked questions from DSA,

Q: Explain all the projects? (The interviewer expects you to explain all the details, and mainly your contribution) I was asked to make a class diagram of the module I had mainly worked upon in one of the projects? Tip: Be very thorough with the projects in Resume, and DO NOT add anything that you are not sure about

Q: Puzzles: Given 12 balls(equal weight), in which one of the balls is faulty(weight is more or less), find that faulty ball in minimum moves? (He asked me to give multiple approaches)

Another puzzle was using conditional probability (Prepare from Interview Bit and GFG Archives)

Q: Given an input array, convert it to a binary tree? (Code this complete program)

Q: Find a kth max element in an array(Complete Code)

Q: Find the length of the Cycle in a linked list?

Q: Sorting Algorithms, and its applications in different scenarios. Given an input stream, in which the majority of the time it is sorted, which algorithm to use in order to sort it? And another if the majority of the times it is unsorted?

Q: SQL Queries(Join, top) with given table examples

Q: Software Development Techniques, Advantages and Disadvantages

Q: Computer Networks(VPN and NAT)

Q: BST, and traversals (Gave an example of a tree and asked to find the traversal)

Round 4: Managerial Round: This round mainly focused on soft skills, and my spontaneity. This lasted for about 45 mins, and the interviewer asked me about projects and challenges I had faced, gave me various situations, and wanted to check how I respond in those situations.

Tip: Be honest, and be positive.

Round 5: HR Round: The HR was very polite. She asked me to introduce myself and then asked me about my performance in the interview rounds. Why Oracle? Later she discussed Salary breakdown, location preferences, etc.

Important Topics and Subtopics to Remember

OOPS, Data Structures and Algorithms, Operating System, DBMS, General Aptitude, Computer Networking.

Sources of Preparation

Leetcode, GeeksForGeeks, InterviewBit



THANK YOU!

If you have any concerns or doubts, please feel free to reach out to us at:
puqueries@goa.bits-pilani.ac.in.

We wish you the best for your preparation and hope that you scale even greater heights
with the help of your seniors!



BITS Pilani
K K Birla Goa Campus
Placement Unit

