# Arcesium Interview Experience 2022

@okape

# Round 1: Resume Shortlisting

Out of 180 candidates, 169 were allowed to appear in Online Test. CGPA cut-off: 7

Verdict: Shortlisted for Online test.

### Round 2: Online Test

There were 3 sections in the online test.

Section 1: Quantitative aptitude 15 mins. It had questions on Probability, Percentage, Ratio and Proportions, Geometry, Age, Distance and Speed, Profit and Loss etc. Level of questions was hard. Those who solved 4/15 questions were good to go.

Section 2: Computer Fundamental 15 mins. It had questions on OOP, SQL, programming, Java, C/C++ and OS. Questions were mostly on predicting the output, concept of OOP and definition.

Section 3: Coding Questions. It had two questions to be solved under 45 mins.

Question 1 [Easy]: You are given an amount K and N number of toys having prices A1, A2, A3 ... An. You need to find out maximum number of toys that can be purchased in amount = K. (Can be solved using Greedy). Only 10 mins were remaining so I applied a DP solution in which 5/9 cases passed.

Question 2 [Medium]: Modification of Allocate minimum pages. (Standard binary search problem). All test cases passed.

Verdict: Shortlisted for interviews. 18/169 were shortlisted.

# Round 3: Technical & Coding Round

This round was setup on hackerrank codepair. Mine was the first interview scheduled with few others. The interviewer was an engineering lead at Arcesium heading two modules. He first introduced himself and then went on with my introduction. He conveyed that he is in hurry and would like to end the interview in 30 mins even though 45 mins were allocated. I gave him an assurance that we can try our best to wind this up in that time. Then he gave me a question on finding total unique paths in matrix where the obstacle was represented by 1 and clear paths by 0. We need to find how many unique paths exists with and without obstacles from (1, 1) to (M, N). I can only move either bottom or right direction.

Firstly, I asked a lot of clarifying questions regarding problem statement then gave my approach using DFS. I also mentioned that it can be solved by DP if only number of paths were to be calculated. He was satisfied with my approach so I coded it up and it ran well. Later he followed up with a question to print all those unique paths to which I gave an approach using caching the traversed path in String and he was satisfied. At the end he asked me some questions related to projects and OOP concepts. The interview ended in 40 mins.

Verdict: Shortlisted for Round 4. 11/18 made to round 4.

# Round 4: Technical & Coding Round

This round was on hackerrank codepair. It was taken by two senior engineers at Arcesium. At first, I was nervous to see two interviewers but later they introduced themselves and were very friendly. After my introduction, they asked question related to my project and work experience at WSDC and Cura2022. Then they followed up with a design problem. And it was like this "You are getting transaction orders having quantity, price and transaction date as metadata. The transaction can be either buy/sell. You need to find out the net profit and loss at each Sell transaction. "The entire focus of this question was designing an OOP program and efficient use of data structures. Firstly, I asked lot of clarifying questions and then explained my approach. I wasn't able to code it up completely but the interviewers said that they knew what I was doing and were satisfied with it. Then they moved on to ask CS questions. First interviewer asked me a lot of questions on OOP such as about access modifiers and polymorphism. There were questions on OS like difference between turnaround time and response time and where have you seen them in action. The second interviewer asked me questions on DBMS like difference between stored procedure and functions in MySQL, difference between clustered and non-clustered index. I did not answer DBMS question well in this round however the first part of designing went well.

Verdict: Selected for Round 5. 7 / 11 were selected for this round.

# Round 5: Technical & Coding Round

This round was yet again on Hackerrank Codepair. It was taken by senior engineer at Arcesium. The interviewer was very friendly and introduced himself very well. After giving my introduction he gave a design question to design a movie booking ticket site. He asked me to mention all the entities/class involved and according to the use-cases of each I had to give attributes to them. I didn't know much about Low Level Design but somehow, I had to try my luck in it. The first thing I did was to ask the minimum features the app may have. He replied that it can have two features: Searching movie and booking movie. Then I asked some more clarifying questions. Finally, I gave my solution and he was satisfied with it. He then asked me to form schema for the database. I did this part very well. Later he asked me to write a SQL query to find out top two languages a user has watched. I did this too. After this there were series of questions on OOP, OS and DBMS. I answered all of them and felt very confident. Finally, the interviewer asked me if I had any questions for him to which I asked him about "What products does Arcesium works on and where can we see such products in action in day-to-day life?". Overall, my round 5 went very well and I was confident to reach HR round.

Verdict: Not Qualified for HR round.

#### HR Round

Only 3/7 students were asked to appear in HR round, unfortunately I wasn't one of them. 2/7 were selected for FTE role for the batch 2023 at Arcesium.

#### Tips to excel in Arcesium OT:

- Practice lot of Quant.
- Have in-depth knowledge of OOP, OS and DBMS.
- Solve good number of common interview problems.
- Read lot of interview experience on GFG for getting insights.

#### Pro tips to excel in Arcesium Interviews:

- Be prepared with Computer Fundamentals.
- Practice explaining your approach a lot.
- Speak your thought process to the interviewers clearly.
- Ask many relevant questions.
- When you face a tough problem or a problem which you don't know about do not say NO bluntly to the interviewer. Try to solve it as much as you can. Take his/her help if you have to but do not say NO.

#### Possible reasons for getting rejected in a round:

- Lack of confidence.
- Lack of knowledge.
- Giving up too easily.
- Directly jumping to the solution without asking proper questions.
- Poor communication.

In my case, I guess, lack of knowledge in DBMS may have played a role.

My feedback to the interview: The interviews were very nice. All the interviews were full of variety of problems ranging from DSA to low level design. So be prepared in all the spheres.

Moral: After getting rejected, I felt sad. For next two days I did nothing. I knew very well how people feel after getting rejected but had never thought I had to face the same. After a week I felt good about reaching till last round and knowing that I learnt something that day. Rejections will happen and we may spend our day in stress and anxiety but we can also learn to enjoy the process and learn from all the experiences.