

## DRISHTI MALHOTRA

MCA 2019-2022

### Amazon Interview Experience (6 Months Internship + FTE)

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3<sup>rd</sup> August, 2021

#### Round 1- ONLINE ASSESSMENT (2.5 hours)

Initially you will be given choice to select your preferred programming language.

##### SECTION A (20 Mins)

**Debugging :-** 7 questions were there we need to correct the code . All questions were easy.

##### SECTION B (70 Mins)

**Coding :-** 2 coding questions were there but both the questions were wrap around some real life sort of problem . Need to read the question carefully to deduce the problem that can be related to the given question.

- 1) Variation of two sum problem
- 2) <https://leetcode.com/discuss/interview-question/797541/amazon-online-assessment-2-sde-1-new-graduate-2021-coding-2-questions-with-solutions>

Question 2 of the above link was there in OA.

##### SECTION C (20 Mins)

**Work Style Assessment:-** It has 40-50 questions(approx). Situations were given and we have to select the option .While choosing any option keep amazon leadership principles in mind.

##### SECTION D (35 Mins)

**Aptitude And Reasoning:-** It has 24 questions . Questions were easy and doable.

35 Students were shortlisted

31<sup>st</sup> August,2021

Platform :- Amazon Chime

## Round 2- TECHNICAL ROUND 1(1 hour)

It started with introduction from both the sides then he straightway jumped on DSA problems.

- 1) <https://www.geeksforgeeks.org/find-element-appears-array-every-element-appears-twice/>

It was given that the array is sorted. I discussed all the approaches and he asked me to code the optimal approach. While moving from brute force to optimal make sure you tell the reason that why are you using a particular approach for instance in the above question the optimal solution is the binary search tell him since array is sorted then we can think of applying binary search and will look for the element in its left and right keeping in mind we are not breaching the boundary conditions. I was asked to code and dry run on test cases. Then he asked me if the elements appeared thrice then what all changes need to be done in optimal solution just have a discussion about that .

- 2) <https://www.geeksforgeeks.org/queries-counts-array-elements-values-given-range/>

I haven't done this question before . I started with brute force by placing range values in 2 variables and then iterating over the array and counting the elements that lie in the range .He asked me to optimize then I thought of sorting the array and applying binary search . Then he said if duplicates also exist then I told him will be find first occurrence of the lowermost element of range and last occurrence of uppermost element of the range . He asked time complexity I told him the exact time complexity for all the queries . He told me to further optimize here you have to catch the hints he told me to do some pre processing so that for all queries it can be done in  $O(1)$  . So , I thought of using HashMap (in java) to store the counts corresponding to each element and using that need to have an array which stores cumulative sum of all the numbers including that number . It was given that array elements are whole numbers. So for first query need to do all this for remaining it can be done in  $O(1)$  time by just accessing the values at array indexes corresponding to the given range and subtracting them.

Then he asked me to ask some questions.

1<sup>st</sup> September,2021

Platform :- Amazon Chime

### **Round 3- TECHNICAL ROUND 2(1 hour)**

It started with introduction from both the sides then there was discussion about the project since it was a machine learning project so he asked questions about the classification models used, there results and many more. It was 15-20 mins discussion. Post that he started with DSA problems.

1) <https://www.geeksforgeeks.org/add-1-number-represented-linked-list/>

I asked him do we have to create another linked list or need to do update the given linked list so he said let's discuss both approaches. Then asked to code the optimal one and then dry run on some examples.

2) <https://www.geeksforgeeks.org/delete-leaf-nodes-value-x/>

I started by explaining various cases that is when leaves and internal node has the target value which needs to be deleted. Coded the question and dry run on some test cases.

Then he asked me to ask some questions.

1<sup>st</sup> September,2021

Platform :- Amazon Chime

### **Round 4- BAR RAISER ROUND(1 hour)**

It started with introduction from both the sides then there was in depth discussion about the project. Discussion about classification models and analysis of statistical outputs. Various questions were asked such as:-

Q1 How the data was collected for the project?

Q2 How did you get the idea for the project?

Q3 Challenges you faced while doing this project?

Q4 How your project is beneficial for people?

Q5 What improvements can be done in your project to take it to next level?

Some more....

He moved to DSA problem

1) <https://www.geeksforgeeks.org/maximum-sum-path-across-two-arrays/>

He asked to code and then we dry run on various test cases. He asked further questions that if duplicate elements are present then what changes will be required if any.

He tried to grill me by asking various behavioral questions such as:-

Q1 A situation when you faced criticism?

Q2 How you improved post that criticism?

Q3 A situation when you have conflict with team mate?

Q4 How you resolved that conflict?

Q5 What are the learnings that you draw out of that conflict?

Q6 A situation when you take calculated risk in your life?

Some more...

Then he asked me to ask some questions.

12 Students were selected (7 got 6 Months Internship +FTE and 5 got 6 Months Internship)

### **PIECE OF ADVICE**

- 1) Do not start coding initially try to gather information about the requirements of the question.
- 2) Interviews are two way communication so make sure you are confident and even when you are solving DSA question initially speak whatever you are thinking so that interviewer knows the way you are thinking and the way you are approaching the solution.
- 3) Know your projects inside out. While doing project only try to note down the problems which you are facing. Think about what more can be done.
- 4) While answering behavioral questions keep amazon leadership principles in mind. Don't overprepare for them try to keep them simple and natural.
- 5) Before any interview think that whatever will be asked you will be able to solve it with your prior knowledge.
- 6) Rejections are part and parcel of life. Post any rejection try to understand your mistakes, work on them and brace yourself for the next opportunity.

7) Stay Positive ,Stay Calm and continue doing hard work .Your time will come and it will take you to your destination.

**All The Best and Give Your Best Shot :)**