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Amazon Interview Experience for SDE 1- Off campus

- Difficulty Level :\nMedium
- Last Updated :\n02 Sep, 2019

I applied off campus through referrals that are rolled out frequently and during one of the hiring drives, I got a mail for interviews. They had the following things planned.

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Each round is an elimination round. One important thing for all the rounds is to be aware of Amazon\xe2\x80\x99s principles and their STAR (Situation, Task, Action and Result) method to answer questions.

Written Test:\xc2\xa0

They will have 3/4 sets of two questions and you will be given one of the sets. For me the questions were:

1. Reverse a linked list
2. Find maximum from all the subarrays of size K
Try to write the optimised solution and give in as much detail as possible by writing comments. I even mentioned the complexity of both the codes. There were around 100 people and they filtered out around 65-70% of the people after this round.

Round 1:

This round started with my introduction. Then he asked two technical questions of moderate difficulty based on arrays primarily. One of the question was:

[To find an element in a sorted and rotated array.\xc2\xa0](#)

The other question was around arrays and map and was doable. Then he asked me about one of my projects and how I showed ownership there. This round lasted for around an hour.

Round 2:

I was told that since my previous round was really good so this round will be a shorter one. He asked me just one technical question around trees. The question was to find the right view of the tree but he didn\xe2\x80\x99t give out all the details in the beginning. There was a condition that the vertical depth of the nodes have to be considered too. The node with the largest vertical depth on a particular\xc2\xa0 level of a tree had to be considered. I used a hashmap and a queue for solving this and he was satisfied with my approach. This round lasted for around 30 minutes. They filtered a lot of candidates after this round.

Round 3:

This around lasted for around 2 hours and they asked questions from every possible topic, coding, theory, behaviour, projects and what not. There were two interviewers, one of them was a

shadowing interviewer so she was just observing me. The coding question asked were:

1. We have a company where unique alias has to be allotted to all the employees and an alias is the smallest unique prefix of the employees\xe2\x80\x99 name. Here, same alias cannot be given more than once say for 6 Tanyas, alias would be T, Ta, Tan, Tany, Tanya, Tanya_2 respectively and for the last Tanya since the complete name has been taken before so the alias would be the name appended by the number of times the alias has been repeated. I suggested the use of Tries with storing the count for every alias that is allotted and he asked me to return the alias for every new employee who comes.

2. Find the maximum length of subarray where the product of array elements = the LCM of those elements. I suggested him the use of GCD here because the GCD would be 1 for the elements that satisfy this condition. He gave me a range so the final solution that I proposed was to store unique prime factors of all the numbers before and then find the range in a single traversal, keeping track of the start and end.

He then asked me questions around Networking. How does a server respond to a client\xe2\x80\x99s request and how is the connection established. Then I was asked questions around cryptography and the Digital Signature algorithm. He then asked me why Amazon and why not the other companies that you have offers with.

Round 4:

This round was scheduled after 4 days and it was VC round. This round was a bar raiser round so they asked easy technical questions and was focused on principle based skills as well. He started off with asking the condition of a tree being balanced and then asking the code for it. Then he asked me for code to check if an array is a subarray of other array. He didn\xe2\x80\x99t want the usage of extra space. He asked me about the sorting algorithms that I know of and pointers about each. Then he asked me about deadlock and how can it be resolved using code. Then another interviewer joined and they asked about situation where I faced deadlock and how I overcame that. I was asked about situations where I took the ownership and stuff like these. Remember their principles and build your answers around them. This round lasted for around 40 minutes.

Verdict: Selected

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