Amazon Interview Experience | On-Campus

- Difficulty Level :\n[Expert](#)
- Last Updated :\n30 Jun, 2021

Amazon has visited our campus (NIT JALANDJAR) for the role of Software Developer Engineer-I (16th August 2019)\xc2\xa0

Process: 1 onilne coding roun+ 4 F2F technical interviews.\xc2\xa0

Online coding round:\xc2\xa0

It was very easy and there were 20+ MCQs and\xc2\xa0 2 coding questions-\xc2\xa0
1.you have a string and you have to replace every character with the character 3 place ahead(like a->d, z ->c, \xe2\x80\xa6.)\xc2\xa0
2.related to array, I don\xe2\x80\x99t remember it but it was very easy to implement.\xc2\xa0

First technical round:\xc2\xa0

1. Tell me something about yourself.\xc2\xa0
2. Tell me something not on your resume.\xc2\xa0
3. Given an array of integers.If the number a and its negation -a both present in the array then print it.\xc2\xa0
ex: if {10, 5, 0, 9, -10, 7, -5} is given then print 10, 5.\xc2\xa0
At first I told him the linear search approach then binary search approach but, I was using the extra space. So, he told me to reduce it to\xc2\xa0O(1). I explained him my modified approach and coded it.\xc2\xa0
4. LRU implementation\xc2\xa0
I told him an approach having time complexity of O(size of frame).He was not happy with my approach.\xc2\xa0
then I tried to think in a different manner and came to a solution where I used pointers and unordered_map to reduce its complexity to\xc2\xa0\xc2\xa0\xc2\xa0 O(1) and finally coded it.\xc2\xa0
5. Merge k sorted array\xc2\xa0

I explained him and wrote Min Heap based solution. He was impressed and then asked me the complexity.\xc2\xa0

Second technical round:\xc2\xa0
1. Some SQL queries (related to nested query) and sharding\xc2\xa0
2. What is BST and how to check that the given binary tree is BST or not.\xc2\xa0
I told him the postorder approach using minimum and maximum range. He then asked me what would happen if the left most node is equal\xc2\xa0\xc2\xa0 to INT_MIN and right\xc2\xa0 most node is equal to INT_MAX then what will you do.\xc2\xa0
3. Sum of a given range\xc2\xa0
I explained him 2 approach and he wanted me to code for both of them\xc2\xa0
a) Segment tree(O(Logn))\xc2\xa0
b) Square root decomposition (O(sqrt(n)))\xc2\xa0
4.Which graph traversal method is better and why.\xc2\xa0
5. Spiral traversal of a binary tree but the direction of traversal should be-down to up manner and start traversing from bottom right node. I used 3\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 stacks and coded it. After that he asked me to try out some examples.\xc2\xa0

Third technical round:

1.Tell me something about your hobbies and interest.

2.A matrix m is given. you are standing on the given position m[x][y] and there are k numbers of delivery boys with there positions given.

If the m[i][j]=0 that means this path is blocked.You can move in 4 directions, now you have to find the nearest delivery guy and return its position.

I told him an approach using Backtracking . He asked me to reduce the complexity then I expained and wrote the program using BFS.

He asked me to dry run the code.

3. Heavy Light Decomposition

I explained him and wrote the code.

link → https://www.geeksforgeeks.org/heavy-light-decomposition-set-1-introduction/

4. Deadlock necessary conditions with examples.

5. There are 2 processors in a system and each having a process.when the process have 2 threads, it takes 4 ms to complete 4 task. How much time it will take if the process have single thread.

First, I was confused then he explained me the question again. I told him the answer with the appropriate reason but I was not sure.

6.He said me that this is the first time he is taking interview of an ECE student. And asked me questions on microprocessor and RAM internal architecture.

Fourth technical round:

1.Asked me about my internship project.

2.Why we use RNN and what is the difference between RNN and CNN.

3. Question based on system design.I said that it was not in my syllabus because my branch is ECE then he told me to use any data structure.I used hash map and DBMS for storing the data.He asked me to write the code.

4.Given a stream of characters. Print all the characters, not repeated in last 10 ms. I used dequeue of size 10 to implement it.

5. Implement Round Robin process scheduling.It can easily be done using Queue data structure.

6.Why Amazon?

!!!!!!!!!!!!We were said to wait for the result.

!!!!!!!!!!!!finally, 4 CSE students and 1 ECE student (luckily me ;)) were selected for SDE profile.

Tips:

They want each and every question to be coded properly on paper. So, do practice.

If you know the solution, tell the brute force and then optimize it.Discuss with the interviewer as much as you can.

Stay confident and trust your instincts.

I would like to thanks Geeks for Geeks which was a great help during my preparation for the interview.

My Personal Notes *arrow_drop_up*

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