## **Microsoft Interview Experience for Internship**

Difficulty Level :\nMedium
Last Updated :\n01 Nov, 2020

Recently Microsoft has visited our campus for hiring pre-final year students for 6 months software developer internship roles. There were not so many strict eligibility criteria.

CS, IT, ECE, EE branch students having c.g.p.a more than 8 with no active backlogs were allowed to sit in the online test.

 Around 260 students sat for the first round that was an online coding challenge on mettl platform(one of the most secure platforms for taking the online tests).

**Online Test(90 min):** Conducted on https://tests.mettl.com/ and contains 3 coding questions with different difficulty levels \xe2\x80\x93 Basic, Easy, and Medium and carrying marks accordingly. Every student got a different set of questions, mine was:

- It was a very easy and known question of finding the nth term in a Fibonacci series.\xc2\xa0
- It was like an encoding question where we have to change every alphabet of a string to an alphabet which is 3 places ahead in alphabetical order. The question was easy having a slight tricky corner case when we encounter alphabets like x, y, and z.
- It was based on to validate a given IP Address.

Since the test was so easy so those were able to solve all three questions and having c.g.p.a greater than 9 were promoted to the next round, around 40 students were selected for face-to-face interviews.

**1st Technical Interview(60-90 min):** Since due to covid whole process happened virtually so our interviews took place on Microsoft Teams app, mine started at sharp 9 a.m. in the morning, Interview began with a formal introduction about me and my interviewer, then he started discussing my resume, where I have written a lot of things.

He started talking about my projects, recently I participated in the Grand Finale of Smart India Hackathon, so I have a good project to explain which benefited me a lot. He asked a lot about tech-stack used in developing the project that was React.js for client interface and Django for server interface and python for ML model, he was well impressed with the way I overcome the problems faced during the course of the project, then without wasting more time on projects he shifted to the languages and new technologies that I mentioned my resume like blockchain, this whole conversation lasted for about 20-25 min.

Then he asked me to code some standard coding questions, He asked me to share my screen and write code on any editor of my choice and language as well, I chose VS Code and c++ language.

Questions were quite easy but you have to keep on discussing each and every approach with your interviewer so that he can have a good understanding of what you are writing and to help you as well where you stuck.

- To find the middle of a singly linked list.
- A program to check if a binary tree is BST or not or \xc2\xa0A program to check if a binary tree is BST or not.

He has more focus on the time complexity of the programs not on space and told me to optimize my

code as much as I could, At the last, he was happy with my optimized approach.

Then he asked whether I had any questions from him or not and I asked a few questions and my interview ended, I was happy as it went so well.

I started waiting for 2nd interview call and within 2 hours I got the mail to join the meeting for my 2nd technical interview.

**2nd Technical Interview(45 min):** This round started with a good pace, he asked me to first code some problems and given me 3 questions to code, though they were easy he wanted to see my approach to solve these problems,\xc2\xa0

- To find the column name from a given column number in Excel sheet\xc2\xa0
- To reverse every word of a string without reversing the order of words.
- Question-based on Kadane Algorithm.

After going through these questions he said so let\xe2\x80\x99s start talking about your projects and resume and started discussion about my projects again in detail, then he asked many questions on Node.js as I have written it as my first priority language for web development.\xc2\xa0 Questions on DBMS, indexing in DBMS, NoSQL, and SQL database, how they both operate on data, and explanations for a large system also.

After getting answers to all these questions he asked some additional questions based on OOPS principles and Operating System basics, I answered them all, he was satisfied with the response.

Then finally he asked his last question that Do you have any questions and I asked a few about the technologies that interns will be going to work on an internship, about the work culture of Microsoft.

This round too went well.

At around 6 p.m. I got a call for HR interview (the final round)

**HR Managerial Interview(30 min):** This was the most mind relaxing and chill interview, HR used to ask about myself, my hobbies, my family background, and all those stuff. Then one more person joined the meeting I thought one of the head managers of the company he asked me some technical questions like to find the least common ancestor in a binary tree and some technical questions based on my projects I answered them all.

Then HR wanted me to explain one of my good projects to him, I explained my SIH project to him, and he was happy with that.

The interview ended with some questions from my side about the culture at Microsoft.

Note: At last 22 out of 40 students has been selected for SDE Internship at Microsoft

## Some tips

- Be confident throughout the process and if somehow you got stuck ask for some hints from your interviewer. He will love to help you.
- Practice as much as you can of coding questions from any of the trusted sites, I suggest go for GeeksforGeeks, they have the perfect set of questions for every company
- Go through all the past experiences of the company that you are going to give an interview to (All these stuff are available on GeeksforGeeks)
- At last prepare with some questions to be asked from the interviewers at the end.

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