Truminds Interview Experience (Internship + FTE)

Yash Khorwal, M.Sc. Computer Science (2021 - 2023)

Round 1: Online Assessment (2 hours) - 12th October 2022

- Platform: HackerEarth
- 18 Multiple Choice Questions (based on Aptitude and Logical Ability, Time Complexity, Output questions, OS, DBMS and CS fundamentals)
- 1 Coding Question

Round 2: Technical Interview (45 mins) – 13th October 2022

The interviewer was at the position: Senior Technical Lead

- Platform: Microsoft Teams
- 1. The interview started with an introduction.
- 2. Brief discussion about my projects and one among them was discussed in detail.
- 3. Asked me in which language I am comfortable with.

4. OOPs:

- What is a friend function?
- What is a virtual function? Why do we use it?
- What are pure virtual functions?
- Questions on access specifiers in C++.

5. Coding Questions:

I was instructed to open any IDE.

- Given a string, remove all the duplicate characters and return the resulting string.
 - For example: Hello World -> Helo Wrd
- Given a Singly Linked List and an Integer Value, remove all the nodes that contain the value. The reference to the head node was a Double Pointer (The interviewer asked pointer concepts while I was coding).

6. Operating System:

- Scheduling Algorithms.
- What are Deadlocks? How to deal with it if one occurs?
- Difference between Processes and Threads.

7. Networking:

- Difference between TCP/IP and OSI.
- Protocols used in different layers of TCP/IP model.
- Difference between Router, Switch and Gateway.

Round 3: Leadership Discussion (40 mins) - 14th October 2022

The interviewer was at the position: CTO

- Platform: Microsoft Teams
- 1. The interview started with an introduction.
- 2. Discussed projects in depth.
- **3.** What are AVL Trees? Given 1000 nodes in an AVL Tree, approx how many searches we have to perform to delete a node in the worst case scenario (It is a leaf node)?

- **4.** Given two Linked List, Singly and Doubly each. A pointer to a random node (anywhere in between) is given that needs to be deleted. In which type of list the operation would be costlier and why? (Discussed only approach)
- **5.** Types of Polymorphism and how to achieve them?
- **6.** What is IPC? Different methods through which the processes communicate.
- 7. Pipes vs Sockets.
- 8. TCP vs UDP.
- 9. Difference between IP and MAC Address.
- **10.** How to resolve MAC Address from IP Address.
- 11. Why Truminds?

TIPS:

- ★You should have in-depth knowledge about topics related to your projects.
- ★ Have good knowledge of CS core fundamentals.
- ★ Make sure to ask ample amount of questions required to begin with hands-on coding.
- ★ It's okay to not know every answer. Try to ask for hints, that might lead you towards the answer.
- ★ Try to give real life examples related to concepts asked.
- ★ Have good communication with CEO or CTO in the leadership round.
- ★ Just be yourself.

ALL THE BEST

For any queries, contact <u>yash.mcs21.du@gmail.com</u>.