

## **Ciena Interview Experience (C/C++ Profile)**

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### **Round 1 (Online Assessment) (60 min)**

There were two different assessment setups according to the profile for which the students had applied (One for C/C++ profile and one for Java Profile)

- The Java profile assessment had 2 programming questions.
- The C/C++ profile assessment had various set of assessments, different for each candidate.

I got a single section with 45 MCQ questions consisting of various Aptitude and Reasoning questions (medium to hard level), C output-based questions (medium level) and computer fundamental questions (easy level).

Around 43 students were selected for the next round.

### **Round 2 (Technical Interview) (40 to 50 mins)**

The interview started with basic greetings, and then the interviewer gave me 4 output-based questions in C language, all based on pointers (const int \*, int \* const) and whenever I replied with an error, he confirmed if there would be a segmentation fault or a compile time error. In continuation to the same, he asked me about the stages of execution of a C program, and when I mentioned the linking and loading stages, he asked me to brief them.

He then asked me about the difference between macros and inline functions (in the context of their usage) and confirmed which among them is pre-processed. In continuation, we had a basic discussion on what the C preprocessor does.

He then asked me about the difference between an array and a linked list, and when I replied in the context of memory allocation for both, I also added that the linked list is free from external fragmentation. The discussion then went on to basics of operating system. He asked me to brief various CPU scheduling algorithms and added which CPU scheduling algorithms does Windows use.

The interviewer then asked me to scale myself out of 10 in DSA. I scaled myself a 7 out of 10. He then gave me an easy level DSA question,

Reverse words in a given string: <https://www.geeksforgeeks.org/reverse-words-in-a-given-string/amp/>

I was then asked a basic computer networks question about the layers of the OSI model and then he asked me to brief the functionalities of data link layer.

At last, I asked the interviewer about my feedback to which he replied that my basics were clear but he suggested me to have a strong foundation in C concepts. I also asked him about his experience at Ciena.

### **Round 3 (Technical Interview) (30 mins)**

The interview started with basic discussion about my MERN Stack project, where the interviewer asked me to explain JWT token and its usage in my project.

He then went on to a medium level DSA question and he asked me to solve it in around 20 to 25 mins.

Input String: BANANNAAAPB

Output String: BANA2N22N3A32A43A5PB2

where the number to the right of the alphabet (if any) denotes its count in the input string (if count is  $>1$ ), eg: the alphabet A at 3<sup>rd</sup> index is occurring for 2<sup>nd</sup> time in the string, therefore in the output string, A is followed by 2

and the number to the left denotes count of its consecutive occurrence (if count  $>1$ ), eg: the alphabet N at 5<sup>th</sup> index is 2<sup>nd</sup> consecutive N (since at 4<sup>th</sup> and 5<sup>th</sup> index we have the same alphabet N), therefore in output string, to the left of the same corresponding N we have 2.

I first gave an  $O(N^2)$  solution using an unordered\_map in around 5 to 7mins, to which he asked me to optimise it.

I took around 3 to 4 mins and solved it in  $O(N)$ . He was satisfied with the solution and asked me, if instead of an unordered\_map, I could have used any other data structure, to which I replied a vector of size 26.

He then moved on to C output questions based on pointers. He asked me to calculate the size of the memory allocated (by using malloc) in one question, and tried to trick me by asking the size of pointer variable in case of int pointer and char pointer.

He then indirectly asked me about use cases of realloc and calloc for memory allocation.

At last, I asked the interviewer about my feedback and I also mentioned that my interview ended in around 30 mins while others gave it for around an hour. He replied that I performed well and was able to answer all that he wanted to know from me.

I also asked about what Ciena's expectations from an intern are.

#### **Round 4 (HR Round) (15 to 20 mins)**

It was not an elimination round.

It started with my introduction where she told me not to mention any tech skills but just my family background, education, and my fields of interest.

Then she asked basic questions like my skillset which makes me different from others, a project that I faced difficulty in but managed well, any real-life instances of leadership skills and team work, and some more behavioural questions.

This round ended with her best wishes for me.

**Verdict: Selected for Internship + FTE offer**

From both profiles combined, 14 students were given an Internship + FTE offer.

### **Feedback**

- Both the interviewers were nice and humble and they made sure that I was comfortable throughout the interview.
- It was an overall great experience that I got.

### **Tips**

- Have a good command of C/C++ concepts as it will help you clearing your OA as well as interviews.
- Do not leave aptitude and reasoning practice when you prepare for placements as it constitutes a major portion for OA rounds.
- Maintain healthy communication with the interviewer throughout the interview.
- Even if you are close to your answer, ensure to catch the hints the interviewer gives you during the interview.
- Make sure you are thorough with the fundamentals and whatever skills you mentioned in your resume.

(Don't be demotivated by rejections, you will ultimately get placed on your lucky day.)

**ALL THE BEST !!**

