

Qualcomm Interview Experience for Application Developer (Hyderabad) April 2022

- Last Updated : 27 Apr, 2022

Tech round 1:(little over an hour):

- Some questions on resume and past experiences
- 2 coding questions on LinkedList
 - Remove duplicate nodes from the linked list. Follow up -> what if the linked list contains nodes in a sorted manner
 - Remove k-th last node
- Questions on OOPS: polymorphism(run-time vs compile-time), method overloading, overriding, and a couple more.

Tech Round 2:(a little over an hour):

- Some questions on resume and past experiences
- 3 coding questions on Arrays
 - Two Sum
 - Modify the array such that every index contains the product of all the elements in the array except itself. Follow up -> what if it contains 0, what if it contains multiple 0s, negative numbers
 - Given a number and an array search the number in the array(not necessarily sorted). (Suggested him a linear scan). Follow up -> what if we receive a lot of queries for that array. (Suggested space vs time trade-off. Either maintain a HashSet or sort the array and binary search).
- Again some OOPS questions around polymorphism and stuff..(don't remember exactly)

Hiring Manager Round:(half an hour):

Asked some behavioral kind of questions. Nothing technical.

Current status: They have asked me some behavioral questions in a mail, asked questions like why Qualcomm and all. Also asked for current TC, last 3 payslips, offers in hand.

Verdict: Waiting!

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Qualcomm Interview Experience | Off-Campus 2021 (Virtual)

- Difficulty Level : \n[Easy](#)
- Last Updated : \n21 Oct, 2021

Round 1 (Online Test): Done on hirepro platform.

This round consists of 60 MCQs in 90 minutes. 20 Aptitude, 20 Computer science subjects and 20 Programming errors and output questions. Each section of 30 minutes.

Round 2 (Technical Interview \xc2\xa0\xe2\x80\x93 1 hrs.): \xc2\xa0

1. About projects.
2. Delete duplicate nodes in linked list.
3. Reverse linked list.
4. Print linkedlist in reverse order without reversing list (use recursive approach).
5. Convert string to integer.
6. File handling questions in C.
7. Enumeration and max range of enum in C.
8. How to store sum of two large integers.
9. Some questions related to python, regular expressions, etc.
10. Questions from Demand paging, Virtual address, bankers algorithm, volatile memory.
11. Why should we hire you, weakness.

Round 3 (Technical Interview \xe2\x80\x93 1 hrs.):

1. Discussion on projects.
2. Write a program to find if stack is growing upward or downward.
3. Output questions related to pointer.
4. Program to obtain kth byte from a hexadecimal number.
5. Use of pragma in c.
6. Structure padding in c.
7. How to free dynamically allocated memory without using free().

HR Round(5 min): \xc2\xa0

1. Introduction.
2. About current company and position, any other offers. (Interviewed for fresher role).
3. When you can join the company.

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Qualcomm Interview Experience | Off-Campus 2021

- Difficulty Level :[Hard](#)
- Last Updated :14 Sep, 2021

Qualcomm Hyderabad Off-Campus Hiring for Driver Developer

Round 1: Basic round

Time: 1 hr

- What are structure and union, why is union preferred over structure in embedded systems.
- Structure padding concept

```
size of below structure\nstruct st{\n    short int    s;\n    char        c;\n    int         i;\n} st_var;
```

- <https://www.geeksforgeeks.org/structure-member-alignment-padding-and-data-packing/>
- Storage class
- Memory layout
- Compiler phase
- How to check overflow in addition program of two numbers
- <https://www.geeksforgeeks.org/check-for-integer-overflow/>
- Write a program to rotated Linked list by K
- <https://practice.geeksforgeeks.org/problems/rotate-a-linked-list/1>
- Rotation in a circular linked list program
- Resume based questions
- What are OS and kernel
- Write a program for array rotation
- <https://practice.geeksforgeeks.org/problems/rotate-array-by-n-elements/0>

Round 2: Most of the questions related to OS only

Time: 1 hr

- What is the CPU scheduling algorithm, types
- PCB and process table, attribute of the process, process vs thread
- Dispatcher vs Scheduler.
- Which scheduling algorithm implemented in Linux
- Question-related GIT, Linux
- How booting happens in Linux, what is the init process in Linux?
- IPC, Mutex vs binary semaphore and which you will use
- Device driver, character driver
- Question-related to deadlock
- Virtual memory, segmentation, page table
- Input and output control in Linux

Round 3: Third round: 1.5 hrs

- Program to check overflow condition while adding two number
- Difference between 32bit and 64-bit processor
- Program to check 32bit or 64-bit processor
- <https://www.quora.com/What-C-code-can-check-whether-the-OS-is-32-bit-or-64-bit>
- Program array rotation by k
- Little endian vs big endian <https://www.geeksforgeeks.org/little-and-big-endian-mystery/>
- How to check little-endian and big-endian <https://www.geeksforgeeks.org/little-and-big-endian-mystery/>
- Resume based questions
- What is interrupt, types, interrupt life cycle, how it's working in line <https://linux-kernel-labs.github.io/refs/heads/master/lectures/interrupts.html>
- What is CPU, the hierarchy of memory
- write one assembly language code and explain, How CPU executed any instructions with help of register, ALU, control signal,
- Behavior questions

Round 4: Time 1.5 hrs

- Note: first 30 min relates to the kernel and architecture of the system and two Hackerrank problems need to solve within the time limit.
- What kernel, how its works
- Process and threads, adv of threads
- Threads sharing the same address space
- User mode vs kernel mode
- Virtual memory
- If secondary memory is not available then virtual memory is required or not
- Device driver, character driver
- What API and its significance
- How users interacted with the kernel and vice versa step by step.

- How I/O call happened
- What is a system call
- What happened when the user requests any system call with respect to kernel
- Use of driver
- Role of CPU
- What happened when any process required memory access
- DMA concept
- Interprocess communication
- How to communicate to the driver
- More questions related to kernel, driver
- Memory leak, how to identified memory leak in system <https://www.geeksforgeeks.org/what-is-memory-leak-how-can-we-avoid/>
- Two Hackerrank programs First one is <https://www.geeksforgeeks.org/delete-nodes-list-greater-x/> and the second one is <https://practice.geeksforgeeks.org/problems/decimal-equivalent-of-binary-linked-list/1>
- Behavioral questions, culture fit questions

Verdict: Selected

Best of luck !!

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Qualcomm FTE Interview Experience for Software Engineer | On-Campus

- Difficulty Level : [Hard](#)
- Last Updated : 10 Sep, 2021

Qualcomm visited our campus on 14th Aug 2021 for hiring Full-Time Employees for Software Engineer role. It was open only for circuit branches (CSE, ECE, EEE) both B.Tech and M.Tech with a minimum CGPA cutoff of 6.9. More than 250 students have applied for this role.

NOTE: The entire process was virtual as colleges are closed.

Online Test: It was an MCQ based test that was divided into 3 sections. It was completely on C/C++ code outputs, data structures, debugging, Operating Systems, OOPs and a few questions on combinatorics. Difficulty level was medium-hard. It was conducted on HirePro platform video proctored. 45 students were selected for technical rounds.

Number of technical rounds varies from student to student with a minimum of 2 rounds to a maximum of 4 rounds based on our performance. I had only 2 technical rounds. Some of my friends had 3 and some had 4.

Round 1(Technical): This round was on Microsoft Teams. The interviewer shared with me a HackerRank codepair link.

This round lasted for around 1 hour 10 minutes. The interviewer was very good.

He asked me to introduce myself and then asked about my internship project which was done as part of a summer internship at Samsung. After a good discussion on it he then started some questions on operating systems, and I have answered them. The questions were:-

- Why Disk Scheduling is needed and what are different types of Disk Scheduling algorithms.
- As a follow-up question I was asked to implement the best disk scheduling algorithm and a discussion on its efficiency
- He asked me about different types of memories present in a Computer system ? (My answer was cache memory, RAM, Secondary Memory and Register Memory) He asked another follow up question about the working of a cache, about different types of caches and about data structures used in implementation of LRU Cache.

Then he asked what my favorite programming language is!! I told them it is C++. Then he asked some in-depth questions on it. The questions were:-

- What are different types of pointers?
- Volatile Keyword
- Memory allocation of a c++ program
- Create a Singleton Class (Done using Private destructor and static object creation).
- new and delete keywords (Dynamic Memory Allocation)

As I have mentioned Data Structures and algorithms as my favorite subject, he asked few questions on it. (Must run all the codes in the HackerRank code-pair link provided).

- Given a sentence in the form of a string, reverse the words in it and print the sentence (<https://practice.geeksforgeeks.org/problems/reverse-words-in-a-given-string5459/1>)

- Create a linked list and sort the list containing integers. Discussed various sorting techniques and finally proceeded with merge sort as it will be the best choice to sort linked lists than the quick sort. (<https://practice.geeksforgeeks.org/problems/sort-a-linked-list/1>) (<https://www.geeksforgeeks.org/why-quick-sort-preferred-for-arrays-and-merge-sort-for-linked-lists/>)
- Discussion about recursion and memory allocation done during recursion (**call STACK memory**) and about **Dynamic Programming**.

The interviewer asked me if I have any questions. I have asked about my work as a software engineer at Qualcomm and also asked about Snapdragon. I have also asked how Qualcomm was able to head the wireless communication revolution and about developing 4G and 5G which was the best thing last decade. This round ended with a thank you note.

Round 2(Technical): This was also on Microsoft Teams. This was one the toughest technical interviews I have ever given if not the toughest. This round lasted for approximately 1 hour 50 minutes. The interviewer was good. This interview was all about what I have studied as a computer science student. Although it was lengthy, it was an amazing experience.

The interviewer introduced himself and asked me to do the same. Then he thoroughly asked about my resume. He asked about my leadership skills and few more formal questions.

Then he started the actual technical interview with some questions on **computer networks**. The questions were:-

- OSI Model and about all the 7 layers with examples.
- TCP/IP Model and many follow-up questions on it.
- What are a switch, hub, and router? What layer of the TCP/IP model are they related to?
- What is Port addressing?
- Difference between IP Address and MAC Addresses, how they help in communication between 2 different networks.
- Inter Process Communication and follow-up questions like pipes, fifos, message queues, semaphores, and some codes on them about creation and working.

(I told him that I have done a lot of work on IPC and Socket Programming. So, he asked about IPC and was very impressed and appreciated me as i have explained him how to create a chating system using IPC).

Then he asked questions in Operating Systems. The questions were:-

- What are Deadlocks, Spinlocks, and their differences?
- Difference between Mutex locks and Semaphores.
- Threads and asked to write pseudocode to implement deadlocks on threads.
- Difference between a process and program
- Thread memory allocation in a multi-threaded process
- Memory Management and why paging was needed (I have explained about problems like fragmentation in continuous memory allocation)

Then he asked few questions in **Computer Architechture:-**

- What are different Endians in a computer system? Write a c++ code to show if our system's endianness is big or little. (<https://www.geeksforgeeks.org/little-and-big-endian-mystery/>)
- What are buses and their types in a computer system?

I was asked questions on **data structures** and **c++:-** (Should be coded in the codepair link provided. We need to write a proper working code for some questions and pseudo-codes for some)

- Allocate memory dynamically (Heap memory) and then differences between stack memory and heap memory.
- write a C++ code to implement stack overflow and heap memory overflow.
- What is pass-by value and pass-by reference? Write a code to implement it and explain the memory level working of it.
- Given a string remove the extra spaces and reverse the odd positioned words in the string.
- Given a linked list for example `1->2->3->4->null` change the last node to first node and then return the list. i.e return `n->1->2->3->4->n`.
- Given a linked list of names represented in the form of names and is arranged in dictionary order, insert a new name at the correct position in the list of names.
- Given an encoded string in the binary form convert it into decimal form. For example if the string is `10101b001c11` then the output should be `2113` as $10101 = 21$, $001 = 1$ and $11 = 3$ in decimal forms.
- Given a Preorder array of a Binary Search Tree how many other permutations of the given bst will form the same BST as the given preorder. (This was a brilliant question that requires a good knowledge about **BST** concepts and a bit of mathematical work. The answer would be choosing those permutations whose values are less than the root of the tree i.e `pre[0]` and then arranging them all to the immediate right to the `pre[0]`, all elements that are greater than `pre[0]` and arranging them all after the smaller elements chosen before. For example 4, 1, 3, 2, 5, 7, 6, 8, 11, 10 is the preorder therefore in a preorder of bst as discussed all the smaller elements less than root i.e 4 will occur first and then the elements greater than root. Therefore arranging 1, 3, 2, 5, 7, 6, 8, 11, 10 in such a way that all small elements form a group and then all large elements. Therefore answer $(n-1)p(\text{elements} < \text{pre}[0])$. In this example it would be $10-1p3 = 9p3$ where p is the permutation symbol p).

The last question asked was a puzzle which is about 3 bulbs and 3 switches and find the correct pair (<https://www.geeksforgeeks.org/puzzle-7-3-bulbs-and-3-switches/>)

I have asked some simple questions as I was very tired. I have answered almost every single question asked to me correctly and the interviewers were also very helpful. They gave ideas if we get stuck somewhere.

HR Call:- After an hour of waiting I got a call from HR and was told that I have done excellently well in the 2 technical rounds and I won't be having any other rounds. The call ended after some formal HR questions.

After an hour I was informed that I am selected. Overall 12 students got selected.

Note:-

- Confidence is the key.
- I had very less time to prepare for the interviews as I was doing my internship.
- So, I used my time efficiently and worked hard to thoroughly revise all the concepts and practiced coding.
- Talking to the interviewers helps a lot. Also don't bluff in the interviews, it won't help. Be thorough with the resume.
- Also, discuss with your friends while preparing that will help a lot.

Special thanks to my DSA Professor K. Ramesh sir for making me understand the beauty of coding and also my friends. Thank you GfG for playing a key role in my success.

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Qualcomm Internship Interview Experience (On-Campus)

- Last Updated :10 Sep, 2021

Disclaimer: This firm is more inclined towards hardware

Round 1(Online Exam): This round had three sections. Each section had 20 questions and 30 minutes to solve. +1 if you give the correct answer and -0.25 for every wrong answer.

Section 1(Quantitative Aptitude and Logical Reasoning):

https://www.tutorialspoint.com/quantitative Aptitude/apptitude_number_system_quiz.htm. Apart from this, you should have practice solving roadmap puzzle questions where some data is given and you have answer 4-5 questions based on this data interpretation.

Section 2(Programming related MCQs): This section had questions from OS, C programming, find Output, error prediction (if any), memory allocation, bit manipulation, and DSA(trees). No OOPs and DBMS questions were asked.

Section 3(Communication/Data Interpretation/Digital): We had to choose one among these three sections. As I had applied for a software role, I chose communication. It will test your vocabulary, grammar, passage-based questions, sentence order.

I cleared this test and got shortlisted for the interview round.

Round 2(Online Interview): My interview was taken over MS Teams video meet and lasted for about 45 minutes. The interview began with exchanging greetings and the following were these questions:

1. Tell me about yourself \xe2\x80\x93 You may fumble but it\xe2\x80\x99s okay. Gather courage and complete your introduction. \xc2\xa0Believe me, after this the ice really breaks and you are good to proceed with technical questions. The interviewer won\xe2\x80\x99t judge you on this. This question is asked to make you more comfortable. Tell me about your hobbies, interests. In my case, one of my interests matched that of the interviewer. This made me much more confident. Be confident throughout and always have that smile on your face. Most of the time, the interviewers are very friendly and helpful. Ask for hints or problem clarification. Go with the mindset of discussing problems rather than merely coding them.
2. [Find missing numbers from 1 to N](#)\xc2\xa0
3. [Find non-repeating element](#)
4. [Check for integer overflow](#)
5. Calculate memory used in union{ int i; char c[4]; }; and struct x { int i; char c[4]; };
6. [Find Pair with given sum](#)
7. [Swap even and odd bits](#)
8. [Matrix multiplication](#)\xc2\xa0
9. Any questions for me \xe2\x80\x93 I asked about what my role would be with Qualcomm.

The interviewer expected me to provide the exact solution which is given in the GfG articles and I could tell the correct approach. My interviewer did not want me to write code but to tell the exact optimized approach to solve the problem. Also, the interviewer expected me to have sound knowledge of bit manipulation and digital design fundamentals. The interviewer was very helpful and friendly and provided me hints too wherever necessary.

This was the only technical round and I got selected at the end.

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Qualcomm Interview Experience | Off-Campus 2021

- Difficulty Level : \nMedium
- Last Updated : \n10 Sep, 2021

Qualcomm Hyderabad Off-campus Hiring for IIIT Hyderabad.

Round 1: It was an online Test on HirePro Platform which was proctored. \xc2\xa0First Round totally based on MCQs with negative marking. It was divided into three sections and 30 minutes for each. Each Section contained 20 questions.

- Aptitude
- Programming Questions
- Operating System, Computer Networks, Computer Architecture, and Data Structure Algorithm based

Round 2: It was Interview Round on MS Teams. For writing and sharing code Hackerrank Codepair Tool was used. Following are all the questions that were asked.

Language-Specific(C and C++ \xe2\x80\x93 Based on your Resume)

- C program Execution Flow (<https://www.geeksforgeeks.org/how-does-a-c-program-executes/>)
- Difference between memcpy and memmove (<https://stackoverflow.com/questions/1201319/what-is-the-difference-between-memmove-and-memcpy>)
- Implement memcpy without using temporary array.
- Content of Executable C file
- Check Stack Segment is in growing or shrinking direction (<https://www.geeksforgeeks.org/c-program-find-direction-growth-stack/>)
- What is Volatile Keyword? (<https://www.geeksforgeeks.org/understanding-volatile-qualifier-in-c/>)
- What will return malloc(0)?
- How does free(ptr) decide How much memory should be cleared? (<https://www.geeksforgeeks.org/g-fact-88/>)
- Maximum Memory size that can be allocated by malloc

Coding Question

- [Find Count of Palindromic sub-string](#)

Operating System

- Process vs Thread (<https://www.geeksforgeeks.org/difference-between-process-and-thread/>)
- Mutex vs Binary Semaphore (<https://www.geeksforgeeks.org/difference-between-binary-semaphore-and-mutex/>)
- What is Virtual Memory? (<https://www.geeksforgeeks.org/virtual-memory-in-operating-system/>)
- Who converts Virtual address to Physical address? (MMU \xe2\x80\x93 Memory Management Unit)
- What is Cache?
- Who is faster among Cache, RAM and Secondary Memory? (Cache > RAM > Secondary memory)
- Where Page table is located ?

- What is Priority Inversion and its Solution? (<https://www.geeksforgeeks.org/priority-inversion-what-the-heck/> \xc2\xa0<https://www.geeksforgeeks.org/priority-inheritance-protocol-pip-in-synchronization/>)

Round 3: It was based on Aptitude and Coding based Round. I was supposed to write sudo code for each of the following questions.

- [Check two Ractangle are overlapping or not](#)
- [Trapping Water problem](#)
- 100 bulb problem \xc2\xa0(<https://www.materialsforengineering.co.uk/engineers-puzzle/the-100-bulb-conundrum/61497/1/>)
- Linked List insert at beginning(<https://www.javatpoint.com/insertion-in-singly-linked-list-at-beginning>)
- [Linkded List insert at kth location](#)
- [Detect Loop in linked List](#)
- [Find middle of linked list](#)

Verdict: Selected

Overall interview process is focused on your fundamentals of Computer Science. I have prepared core subjects from my gate notes and GeeksforGeeks. Mostly Questions were repeated so [GeeksforGeeks Qualcomm archives](#) were very helpful to me. Interviewers in both rounds were very helpful. They gave me hints in some questions where I was stuck, and I could able to solve them. Always discuss approach first with interviewer then only write code so that he could help you if you are going wrong.

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Best of luck !!

My Personal Notes\narrow_drop_up

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Qualcomm Interview Experience

- Difficulty Level :[Hard](#)
- Last Updated :10 Sep, 2021

Hi everyone. Today I'm going to share Qualcomm interview experience for the role of Software Engineer. I hope it'll surely help you to prepare well for the next interview. So without further ado let's get started.

Job Application:- I applied for the role of Software Engineer at Qualcomm through Glassdoor. I got a hackerrank invite to take the online assessment.

Online Assessment:- There were basically two sections in the assessment. The first section contained MCQs and the second section contained two coding questions.

The First Section

MCQs were totally based on C#, ASP.NET, Angular JS, and OOPs concepts.

All the questions in this section contained code snippets and asked to guess the output.

The Second Section

It contained two coding questions. The first one was based on the Left View of the Binary Tree and the second question was purely based on the heap sort algorithm. The question was like remove two minimum elements from the array and add the sum of the removed elements to the array. Repeat this step until the length of the array is 1. It asked to find the total cost incurred in all the operations.

Round 1: In this round, the questions were totally based on Python and Unix commands only

The round was held in Hackerrank code editor where the interviewer gave some problems to solve particularly in Python from topics like python decorator, lambda function, map, reduce and filter.

I could specifically remember a question from this round

1. `#!/usr/bin/env python` Why it is needed and what does this mean?
2. On Unix, the interviewer asked about the functionalities of some commands.

Round 2: In this round, there were three coding problems given to solve on a virtual whiteboard like that of windows notepad.

1. The first question was based on the Top View of the Binary tree.
(<https://practice.geeksforgeeks.org/problems/top-view-of-binary-tree/1>)
2. The second question was based on Dutch National Flag problem.
(<https://practice.geeksforgeeks.org/problems/sort-an-array-of-0s-1s-and-2s4231/1>)
3. The third question was based on checking whether a string t is left rotation of another string S or not. (<https://practice.geeksforgeeks.org/problems/check-if-strings-are-rotations-of-each-other-or-not-1587115620/1>)

Round 3: In this round, the interviewer asked me questions on a previous company project that I worked in, about personal projects. It was majorly a discussion based on the resume.

After this round, I got rejected. So guys don't lose hope and keep learning and keep practicing.

Thanks.

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Qualcomm Interview Experience | Off-Campus 2020

- Difficulty Level : [Medium](#)
- Last Updated : 25 Feb, 2021

I applied through the Qualcomm careers website(workday portal). My resume was shortlisted for the role of RF embedded software engineer and I received a call from one of the team members.

Telephonic Round: After the formal introduction of myself, I walked him through my resume. I was questioned on pointers, structures, unions, data structures, and projects in the resume. Basics of electronics were also asked as I'm from an electronics background. It was a quick call of 30 mins. At the end of the call, I was informed that an interview will be scheduled at the convenience of the interviewers.

A full-day online interview(on Microsoft Teams platform) comprising 4 technical rounds was scheduled.

Round 1:

A brief explanation of the job role & responsibilities.

Code snippets were given and outputs should be determined. Codes were related to

- pointer referencing, dereferencing & incrementing
- size & memory allocations of structure & unions
- memset function
- constant pointer and pointer to a constant.
- executing volatile variables in functions

Questions other than code snippets were

- Structure padding & packing
- How are variables of a union stored? If the union contains an integer(4 bytes) and a single character(1 byte). Will the character points to the MSB or LSB? The question focuses on how the variables of the union are pointed in the memory block allotted to the union variable. [Concept of little-endian and big-endian systems]
- Implement your own **sizeof** function [Typecasting pointers]
- Write a program to find if the stack is increasing upwards or downwards. [Create two local variables. Local variables are stored on a stack.]
- What is the volatile keyword? How does a volatile variable change?
- There are two 32 bit HW timer registers `TIMER_L`, `TIMER_H`, which form a 64-bit timer(`TIMER_L` lower 32 bit, `TIMER_H` higher 32 bit). To design an API to determine a 64-bit timer, how many register reads are required at best case and worst case?

Round 2:

Questions related to process management & memory management concepts in operating systems.

- Suppose a program is running on 5 threads. If an extra thread should be added, what factors should be considered? [hardware related and thread management related requirements]
- Will the efficiency of the system increase for sure if add an extra thread. If yes/no, why?
- What is a segmentation fault & How to avoid it?

- What are memory leaks & how to recover from memory leakage in a program? [We can't recover within a program. Care should be taken to avoid memory leakage, i.e, by freeing unused variables.]
- If you are to allocate the memory block to a different variable, how will you do it? [allocation, deallocation, reallocation of the main memory. An exact answer was not required. The interviewer wants to know how I would come up with a solution.]
- If you are writing a program to allocate memory to variables, how will you avoid memory corruptions due to the allocation of pre-allocated memory?
- Suppose in a normal program if a variable or a memory location is corrupted how to identify what portion is corrupted?

Round 3:

- Double pointers
- Write code snippet for dynamic memory allocation to 1-dimensional, 2-dimensional arrays.
- You are given a sorted array A of m integers and another array B of the size of (m+n) and initially filled with n elements in sorted order. How will you insert the elements of A in B and finally make the array B sorted? [Time complexity : $O(m+n)$, space complexity : $O(1)$]
- Find the K-th node from the end in a linked list.
- A modified version of Floyd's cycle detection algorithm. Is it possible to find the loop in a linked list if the fast pointer is moved three steps ahead instead of moving 2 steps? If yes or no, why?
- **Puzzle:** 10 machines are manufacturing balls. The first machine produces balls of weight 1 unit, the second machine produces balls of weight 2 units, and so on incrementally up to the tenth machine which produces balls of weight 10 units. One out of the 10 machines fails and starts producing faulty balls of different sizes which differs x units from the initial weight. Given an electronic balance that can measure the weight of any number of balls in a single instance how many times should the balance be used to find out the faulty machine?
- Write a function that takes the root of a binary tree as an argument, creates a mirror of the binary tree, and returns the root of the mirrored tree.

Round 4:

- What is a RTOS (real-time operating system)? Where are they used?
- How is a RTOS different from an ordinary OS?
- Is Android or windows an RTOS. If no, why?
- What are function pointers & why do we need them as we can call a function from any other function?
- Inline function vs macro. Why do we need inline when we can use a macro? Exclude the scenarios where inline will be executed as a normal function and explain.
- Why is debugging faster when the inline function is used?
- If you are given a choice to choose between binary semaphore & mutex what will you choose and why?
- Why do we need a union if memory is not a constraint?
- What makes Interrupt Service Routine (ISR) different from a normal function?
- How is the value of volatile variables altered?
- Few casual questions like how was the interaction with the interviewers till that round, career goals, interest in higher education, etc were also asked.

Few more questions related to RTOS were asked.

I received a telephonic call from HR after 6 days. Just a casual talk regarding job role, work location, package, and all.

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Qualcomm Interview Experience for Fresher | Off-Campus 2021

- Difficulty Level : \n[Medium](#)
- Last Updated : \n10 Sep, 2021

Qualcomm Hyderabad conducted online recruitment on Jan 2021 as an Off-Campus.

Round 1(Online Test): Online test of 1.30 hr. Was conducted which consists of 3 sections as follows.

1. Aptitude
2. Programming Question(Input / output related question)
3. Theory including data structure, operating system, algorithms, etc.

There was a sectional cut off for each section. No coding question.\xc2\xa0

Round 2(Interview): The whole Interview process was carried out virtually at Microsoft Team Meeting. It is a one-day process consist of 2 technical Rounds and 1 HR round. Each Round proceeds are dependent on the previous round interview.

In 1st technical round, some basic question was asked and in the second technical round, the in-depth question was asked. Below is the topic wise question asked during all the 3 round

Basic Question:

1. Introduce yourself and education-related question
2. About Project in details Mention in the resume
3. Something exciting Work did not mention in my resume.
4. Why join Qualcomm instead of Samsung(I already had a Samsung Noida offer on Campus).

Coding:

1. Program to clear the kth Bit (<https://www.geeksforgeeks.org/program-to-clear-k-th-bit-of-a-number-n/>)
2. Implement min () or max () function using bitwise OR (<https://www.geeksforgeeks.org/compute-the-minimum-or-maximum-max-of-two-integers-without-branching/>)
3. Write your own size of function (<https://www.geeksforgeeks.org/implement-your-own-sizeof/>)
4. Finding Loop in the Linked List. (<https://practice.geeksforgeeks.org/problems/detect-loop-in-linked-list/1>)
5. Write a function to calculate an average and after that, he provides some constraint and modifies the question\xe2\x80\xa6 (Did not remember that part).
6. One and two more coding questions asked did not remember the question.

Puzzle:

1. Racing Horse puzzle. (<https://www.geeksforgeeks.org/puzzle-9-find-the-fastest-3-horses/>)
2. Apple / Orange Basket Puzzle. (<https://www.ritambhara.in/3-basket-puzzle-appleorange-puzzle/>)
3. One more puzzle asked but did not remember.

Theory Question on Operating System:

1. What is re-entrant?
2. Deadlock Condition and how to avoid it?
3. Mutex and Semaphores (theory and real-life example too).
4. Process State, Scheduler etc.
5. Cache Related Question (Computer Organization).
6. Fragmentation (Internal and, External Both).
7. Memory management.
8. Kernel, thread related question.
9. More on operating question-related question was asked not to remember exactly.

Theory Question on Programming:

1. Memory Layout (<https://www.geeksforgeeks.org/memory-layout-of-c-program/>)
2. Enum, Micro related question
3. Storage class in C and C++
4. Malloc, realloc, calloc related question
5. Pointer declaration related question like how given pointer declare is read out like `int * a[9];` or `int (*a[9]);` (<https://www.geeksforgeeks.org/pointer-array-array-pointer/>) and more question related to pointer
6. Function declaration, calling, recursion, pass by value, pass by reference, etc.
7. OOPs concept full theory plus real-life example.
8. Compiler related question like full phases of a written program. Like conversation of c.obj file-> C.exe file etc. The symbol table, loader, linker, etc. (refer Ravula compiler lecture video) (<https://www.geeksforgeeks.org/introduction-of-compiler-design/>)

My Suggestion for preparation: Gate preparation will make the theory related question easy and in online test generally gate related question was asked. For coding, you must solve company-wise asked questions. One piece of advice to include in your resume for which you have in-depth knowledge(lesson learned from a Microsoft Interview). Further, try to focus on the brute force method first instead of directly giving an efficient solution during the interview.

Forgive me if my English is not good. By the way, I selected QUALCOMM Hyderabad over Samsung Noida. \xc2\xa0

My Personal Notes\ *narrow_drop_up*

Add your personal notes here

Save

b'

Qualcomm Interview Experience

- Difficulty Level : Hard
- Last Updated : 10 Sep, 2021

Preliminary Round: This

The ground consists of 3 Sections which comprises 60 questions

Section1	Aptitude	20
1	Questions	Questions
Section2	Programming	20
2	Questions	Questions
Section3	Technical	20
3	Questions	Questions

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Round 1 (Technical Round): The

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After that, he checked what he called his areas of interest and

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and what happens actually when can interrupt cis a raised, he asked me about DMA

He asked me about structure of a clining and padding which is a don't know a concept later he checked me about a write code for a bit managed to solve the problem by using a arithmetic coperators he was satisfied and asked me to use a bit of coperators to solve the same problem where I could not find the logic.

(Sorry I couldn't find the link to the problem)

This process went around 90 mins and I asked me to do any questions then I asked

1. What type of opportunities does a fresher get in QUALCOMM?
2. I mentioned to the interviewer that I had a github profile and I asked about his journey with QUALCOMM

Round 2 (Technical)

Round 2: This

was a relatively

easy around for me when compared to around 1.
This time the interviewer greeted me and introduced himself and then opened my resume and asked me to introduce myself and about my previous work, he said I focused on my projects.

He asked me what language I do prefer to write code in and I said I prefer C++.

He then asked me a bit of manipulation questions.

1. <https://practice.geeksforgeeks.org/problems/check-whether-k-th-bit-is-set-or-not/0>
2. <https://practice.geeksforgeeks.org/problems/power-of-2/0>
3. <https://practice.geeksforgeeks.org/problems/swap-all-odd-and-even-bits/0>
4. <https://practice.geeksforgeeks.org/problems/reverse-bits/0>

Surprisingly he called these questions were present in his must-do coding questions for companies like Amazon, Microsoft, Adobe.

I managed to solve these questions and then he asked me that I am comfortable with C++ or C OS then I said I am comfortable with C++ OS.

He asked me about scheduling algorithms.

1. What is the

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Round 3 (HR Round)

Round: I think this is a casual round, the interviewer greeted me and asked about the feedback of my previous interviews and then she asked me

1. Tell me about yourself?
2. Where do you work?
3. What are your plans?
4. What are your strengths?
5. Explain to me the situation where you were in a leadership role?
6. She then asked me about my projects and asked about the situation that I faced in my project?

My Suggestions:

- Always smile and be honest with your replies.
- Attempt the question in a casual way such that if you don't know the answer, you should be crisp and straight to the point and if you don't know the answer, tell the interviewer about the related concept that

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Preparation:

1. **OS** <https://www.geeksforgeeks.org/last-minute-notes-operating-systems/>
2. **DBMS** <https://www.geeksforgeeks.org/last-minute-notes-dbms/>
3. **CN** <https://www.geeksforgeeks.org/last-minute-notes-computer-network/>

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Qualcomm Audio Interview Experience for Software Engineer

- Last Updated :19 Nov, 2020

Round 1(Online Test): The test consists of 3 sections. 1st section was on reasoning, aptitude, quant, etc.. 2nd section was on C programming. Code snippets were given, need to tell output. The third section was on the operating system, OOPs, and some basic computer architecture and data structure questions.

Note: Test was of 1-hr duration(20 min each section), conducted on hire pro platform

Round 2 (First Technical)

:

1. Write a program to insert a node with a given value at the nth position in a singly linked list.
2. Definition of calloc function in C.
3. What will be the output of the below program.

```
int main()\r\n    {\r\n        char a=120,b=140;\r\n        int i;\r\n        i=a+b;\r\n
```

Note: ans=4, also need to explain how the answer will be 4.

4. What will be the size of the following structure.

```
struct node{\r\n    int a;\r\n    float b;\r\n    double c;\r\n}\r\n
```

5. Similar to the above question but with the union instead of structure.
6. Memory layout of C program.

Round 3 (Second Technical):

1. Difference between macro and inline function.
2. Call the main function from the cmd line and pass two arguments to it and with these arguments call macro and inline function defined above. Whose execution will be faster?
3. Find the size of int in C without using sizeof() operator.
4. Inter-Process Communication
5. OOPs concepts
6. Virtual function and virtual class
7. Function overriding and function overloading difference
8. How to implement function overriding in C
9. Extern keyword related questions
10. Some other questions related to operating systems like threads, semaphores, mutex, spinlocks, scheduling algos, etc.

Round 4 (Third technical+ managerial Round):

- Write a program to delete a node with a given value from a single linked list
- And some basic Data structures questions. Then he explained about team and work at Qualcomm. Why you want to join like questions.

Round 5 (Fourth Technical Round):

1. Asked about my project that I mentioned in my Resume.
2. Write a program in C to check if the given string is a palindrome?
3. Write a program to check if the given linked list is circular or not?
4. Write a program to multiply two matrices.

Note: Data structures questions were basic. Their main focus was on C and the operating systems. After the interviews, I waited for 1 month, and then they gave me an offer letter. I applied through a referral.

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Qualcomm Interview Experience (On-Campus for Internship)

- Last Updated :23 Sep, 2020

Qualcomm visited our campus to hire interns. The process had three rounds.

Round 1: Logical Reasoning and Technical Test

This was the online test conducted by Qualcomm which consists of 60 Multiple Choice Questions which we had to complete in 90 minutes. This test was divided into three sections as follows.

1. Aptitude and Logical Reasoning (20 Questions)
2. General Programming (20 Questions)
3. CS Core Subjects Concepts (20 Questions)

We were provided 30 minutes for solving each section.

First section consists of basic mathematical and logical reasoning questions on topics like speed and distance, permutation, Mixtures, etc. This was a quite easy section.

Second section consists of the general programming questions which were mainly from C language and Object Oriented Programming. This section also had some code output and error detection questions. One has to be very thorough with the basic C programming concepts like Pointers, Storage Classes, etc. Some questions were also from Number System Conversion (like convert a given number from binary number to hexadecimal number).

Third section mainly consists of the MCQ questions based on CS Core subjects like Operating Systems, Computer Networks, OOPs. This section also consists of some code output and error detection questions.

Tips :- Solve the questions with calm mind. Don't stress yourself during test. Don't spend too much time on any question if you are not able to do it in the first attempt.

Round 2: F2F Interview

In this round, she asked me small questions which include:

1. Tell me about Yourself

Suggestion: Mention the things in the Introduction at which you are good.

2. Describe your project and comparison based questions related to the technologies I used in my project. (Like why you used MongoDB and its alternatives.)

3. Why do you want to join Our Organisation and what do you know about our company?

Suggestion: Please Read a little bit about the company and its current projects before giving the interview.

4. What are your Strengths?

5. Have you ever used your strength in solving some problem in the past?

6. What is Binary Search Tree?

<https://www.geeksforgeeks.org/binary-search-tree-data-structure/>

7. Give an Algorithm to determine that whether a Binary Tree is Binary Search Tree or not.

<https://www.geeksforgeeks.org/a-program-to-check-if-a-binary-tree-is-bst-or-not/>

8. What is Doubly Linked List and where it is used in real world?

<https://www.geeksforgeeks.org/doubly-linked-list/>

9. What is Stack?

<https://www.geeksforgeeks.org/stack-data-structure/>

10. What is Hashing?

<https://www.geeksforgeeks.org/ hashing-data-structure/#:~:text=Hashing%20is%20an%20important%20Data,of%20the%20hash%20function%20used.>

11. Which one would be better between Hash Table and Queue.

12. What is Graph?

<https://www.geeksforgeeks.org/graph-data-structure-and-algorithms/>

13. What is OOPs?

<https://www.geeksforgeeks.org/object-oriented-programming-in-cpp/>

14. Features of OOPs.

15. Describe two of the features of the OOPs with real life example.

Then some aptitude puzzle were asked.

16. Reverse a given array in-place.

<https://www.geeksforgeeks.org/write-a-program-to-reverse-an-array-or-string/>

So this was all about my F2F Interview.

Round 3: HR Round

HR simply asked that why i would like to join their organisation and what are my key area of interest.

Then he brief me about my intern role.

Hurray! I got the Internship offer from Qualcomm.

Thanks GFG for helping me to get this Offer.

My Personal Notes\ *narrow_drop_up*

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Qualcomm FTE On Campus Interview Experience (Virtual)

- Last Updated : 01 Sep, 2020

Qualcomm visited our campus on 28th Aug 2020. It was the first company of the placement season 20-21. They hired for both hardware and software profiles and open for both B.Tech as well as M.Tech (FTE and Internship). All rounds were conducted online because of the COVID-19 pandemic.

Round 1 (Written Test): There were 3 sections in a written test consisting of a total of 60 questions to be solved in 90 minutes. Please check all the instructions before attempting the exam, as some of us were thinking that it will be only 40 questions (based on interview experiences of friends, etc) and they were surprised to see 20 extra questions at the end. It was conducted on HirePro platform video proctored. Each section had 20 questions and 30 min

- Section 1 (Aptitude questions):** Topics like Ages, Time and work, number series, Data Interpretation (6-7 questions), percentages, mixtures, and so on. Practice aptitude regularly as questions were not that easy. Solving questions from RS Agarwal, Indiabix is more than enough to clear this section.
- Section 2 (C/C++ questions):** This section had questions from c/c++ topics. Some questions were lengthy (especially questions involving pointers, function pointers), so try to see all the questions before you spend time on a particular one. Do easy questions first and keep the difficult questions for the end. You can expect some difficult questions as well. Do prepare all the topics structures, union, enum, pointers, references, OOPS, and so on.
- Section 3 (Technical Questions):** Questions from OS, Algorithms, Data Structures were asked in this section. Do revise your Gate notes and gate MCQs as sometimes you may get a numerical question from Job scheduling, etc.

Overall this test was not so easy, I would say medium level round. So be prepared.

Round 2 (Technical Interview 1 ~ 1 hr 20 min): Out of approx 200+ students, 58 were shortlisted for technical interviews. The first shortlisted 23 students 4-5 days before interviews. Later, they selected 35 more students just a day before the actual interview. I got a call one day before the interview.

I had very little time to prepare for the PI. In this case, be calm and try to revise from previous interview experiences. The interview was scheduled at 8.30 AM with 2-panel members. (For most of the people, it was only one).

- They first introduced themselves and told me a few things about Qualcomm and then asked me to tell something about myself (formal introduction and academic work)
- They gave me a code (It was basically taking a packet and calculating checksum on it. I figured it out at later point in time) and asked me to find out errors in it. We were discussing it for approx 20 min. They were finally satisfied with the proper working code. Some questions were as follows :
 - Returning ref of the local variable from the function.
 - Declaring an array using constant passed to a function.
 - They asked me to dynamically allocate memory and make appropriate changes.

4. Question on where each variable will be stored.
5. Pointing out errors and asking whether it is a compiler error or runtime error.
6. About void pointer (since I allocated memory using malloc)
7. Little Endian and Big Endian techniques.
3. Questions from Paging, TLB, Virtual memory.
4. What is cache flush and cache invalidate?
5. How TLB is implemented, what are the entries present inside a TLB?
6. Some discussion on the work experience I had.
7. Told me to write code: [Adding one to number represented as an array of digits](#)
8. One puzzle similar too: [100 people in a circle with gun puzzle](#). Even though I was not able to solve it at first, he kept giving me hints, and hence finally I was able to crack the same.

That's all for the technical round 1. He asked me if I have any questions for him. I asked him about his experience in Qualcomm and how it has changed his career.

I was directly called for the HR round. Other people had to go through 2nd and even 3rd (in some cases) technical rounds as well. 2nd round was common for everyone. I am providing some of the questions asked to other students in the next 1-2 technical rounds:

1. Code to reverse a linked list.
2. Code to reverse bits of a number.
3. Networking questions: TCP, UDP, OSI Layers.
4. About Embedded systems.
5. OS concepts like Semaphores, Mutex, Producer-Consumer Problem (with code).
6. Almost every student was asked a puzzle at the end. So do all the puzzles from GeeksforGeeks.
7. C/C++ concepts dynamic memory allocation, void ptr, Memcopy, and so on.
8. Code to reverse an array (They do ask such questions as well).

Round 3 (HR): It was just a formality at the end. I do not think that they eliminated students in this round (again I am not sure). It was for approx 10 min.

1. Tell me about yourself.
2. How was your interview experience?
3. Why Qualcomm.
4. Do you have any issues with relocation?
5. She told me a bit about the job location and job description.
6. Do you have a plan B?

That is all !! A total of 12 people was selected (including me) out of those 58.

Confidence is the key. I had very little time to prepare for an interview still I was called directly for HR after the first technical round, so be calm and answer confidently. It is okay if you do not know the answer, honestly tell them that you do not know the answer. Keep your focus throughout the interview process. You might not spot a simple thing because of the interview pressure. Do not worry, they will give you hints for difficult questions they just want to know how you approach the problem in front of you. I needed hints for many questions in the interview, but I was able to answer everything after that. So do not get discouraged even if you are stuck. They will support you in these cases just do not lose the grip. All the best.

I would like to thank Geeksforgeeks which played a crucial role in this success.

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Qualcomm Software Engineer Interview Experience (On Campus)

- Last Updated : 01 Sep, 2020

Qualcomm visited NITK during the COVID -19 pandemic, around 500 students appeared for the test.

The test Pattern is as follows:

Round 1: Written Test (Aptitude Section (20 questions), C/C++/OOPS/Java Section (20 questions), Technical Section (including hardware-level questions)(20 questions))
(+1 for correct answer and -0.25 for wrong answer)

Around 58 students shortlisted for Interviews. The interview was on Microsoft Teams and Hackerrank codepair.

Round 2: First Technical Interview Round (45 mins but for me, it went for 1 hour 10 mins)
(Interviewer was from embedded systems)

1. Introduce Yourself.
2. Asked about my project. (Luckily he didn't cross-question me on my projects since I was answering very briefly)
3. He asked me whether I am familiar with OS concepts and asked questions as follows:
 - What is Paging?
 - About Page Table entries and Page table size and what happens when CPU requests for a page, how page table is useful?
 - Then he asked about spinlocks and process synchronization and some discussion on how semaphores work and deadlock and PCB attributes and all related stuff.
4. Then since I wrote Data Structures as my skill, he asked me to write a code on where and how volatile keyword in C is useful in both read and write Environment?
 - **Answer:** For Reading environment, I wrote code to take a file as an input in and stored in a volatile keyword to check for hardware interrupts and,

For Write Environment, I used mutex variables and threads to code and explain the change of behaviour during process synchronization. (he was impressed with my answers).
5. Then he asked how will you [identify buffer overflow if I multiply two integers](#).
6. Then he asked about the little-endian and big-endian systems and write a code to identify whether it is big-endian or little-endian.

Initially, I proposed using shift operators, but he explained that it won't work. So Luckily I could come up with storing numbers as hex values in strings and check from left and right and coded my solution.

7. Then we moved to structures and unions, he wrote a sample code and asked what will be the size of the structure and union and what is structure padding and how will you avoid structure padding?

- **Answer:** arranging the variable declaration example (change declaration of variable 32 bits + 8 (padding 24) bits + 32 bits to 8 bits + 32 bits + 32 bits). He was impressed because this is an actual method instead of using `__attribute__((packed))` this method is actually good.

In my opinion, it was okay to good and got the next round invitation within an hour.

Round 2: Second Technical Round: (1 hour but for me it completed in 45 mins) (Interviewer from embedded systems background)

1. Introduce yourself.
2. Questions about other project and internship experience and what was your role and simple questions based on that.
3. He saw my last interview remarks and told since you are good with data structures write a code to reverse a linked list full functional code with all test cases covered and with the main function. He will just pass integer values as input and output must be in reversed order.

I was very happy and I completed the code in like 7-8 minutes (He was impressed).

4. Then he asked me for a [puzzle](#). I was very happy since it was extremely easy for me. (Note: For others, puzzles were challenging and few got rejected just because of puzzles so don't take it lightly)

That's it.

After 6 hours

Final HR Round:(10 mins but for me, it completed in 4 mins)

1. Introduce yourself.

He noted that I was applying for the position and software background and explained to me humbly you will join any team based on the needs so don't hope too much and location will be Hyderabad/Bangalore and you must be flexible with everything. I agreed. He asked do you have any questions for me and I replied No.

That's it

Finally, 12 got offers for the FTE role.

Overall it was a good experience and it was day zero company so I was pretty much happy with my performance.

Suggestions: Know about your Interviewer. Be thorough with OS concepts and C programming. Just follow Ravindra Babu Videos for OS theory and use Geeksforgeeks platform to actually understand how things are implemented.

Just a short background about me:

In 2018, I was rejected by some company in 2019 I appeared for the gate and got into NITK, and 2020 I cracked Qualcomm that too day zero company. So always believe in yourself and do let your fears and disappointment overcome you.

I thank GeeksforGeeks for this success.

My Personal Notes\narrow_drop_up

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Qualcomm Interview Experience (July 2020 \xe2\x80\x93 Virtual)

- Difficulty Level : \n[Medium](#)
- Last Updated : \n28 Aug, 2020

Written Round: The time duration for this round was 1.5 hours, Platform was HirePro. After clearing this round there are 3 sections.

Round 1: This round is totally based on aptitude. The main challenge in this round is the time constraint and negative marking. Try to be as quick as possible. \xc2\xa0

Technical Round 1 (Duration ~ 1 hour, Platform \xe2\x80\x93 Microsoft Teams):

1. Introduce yourself.
2. A brief discussion on one of the projects.
3. Difference b/w structure and union. Application of union.
4. Phases of the compiler. How to compile multiple files in one go?
5. Bit manipulation \xe2\x80\x93 Set/Unset the Kth bit of a number.
6. Pseudocode for \xe2\x80\x93 Reversing a linked list\xe2\x80\x9d. [Space Complexity \xe2\x80\x93 $O(1)$]
7. [Puzzle \(100 Doors\)](#)

Technical Round 2 (Duration ~ 1 hour, Platform \xe2\x80\x93 Microsoft Teams):

1. Introduce yourself.
2. Phases of the compiler. What is MakeFile? Explain and show how to make one?
3. Memory layout of a C program. Explain.
4. Explain Dynamic Memory Allocation in C and C++? Different methods/operators for allocation?
5. Bit Manipulation:
 - Set the Kth bit of a number
 - Check whether a number is Prime or not
 - Count number of set bits in a number
6. Difference between Macro and Inline function.
7. What is a constructor?
8. What is Volatile Keyword?
9. What is a callback function?
10. Given 2 Strings s1 and s2. Check whether s2 is a substring of s1?
11. How to remove duplicate elements in an unsorted singly linked list?
12. Explain Polymorphism in C++.
13. How to declare \xe2\x80\x93 a pointer to an array of 10 elements\xe2\x80\x9d and \xe2\x80\x93 a pointer of 10 elements\xe2\x80\x9d?

Important topics: C, C++, OS, DS, CN

The interviewers always try to ask from your strong areas. Try to highlight them. It\xe2\x80\x99s okay not to answer each and every question. Try to answer the best you know. Be natural and confident in answering questions that you know. \xc2\xa0

Verdict: Selected

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Qualcomm Interview Experience (On Campus Virtual) August 2020

- Last Updated : 23 Aug, 2020

Round-1 (Online): This round held for 1 hour 30 minutes. This round was an online MCQ test conducted by HirePro, there were 3 sections.

Each section consisted of 20 questions of 1 mark each to be finished in 30 minutes. There was a negative marking of .25 per question.

- **Section 1:** First section comprised of aptitude questions (Level: Easy/Medium)
- **Section 2:** Second section comprised of C output-based questions. Most of them were time-consuming bit manipulation questions.
- **Section 3:** Third section comprised of questions from DS, OS, Architecture, and Networking, Digital Logic.

Round-2 (Technical Round 1): This round held for 50 minutes and the platform was Microsoft Teams, started with Tell me something about yourself.

1. How many layers are there in the OSI model?
2. How do the I/O devices work?
3. Questions on projects.
4. What is the difference between a Process and a Thread?
5. What is Deadlock? How to prevent it?
6. Write a SQL query for a table she gave me specifically using Joins.
7. What happens when you type the URL in your browser?
8. Some other networking questions.
9. Given a radio, a user can switch to its desired channel by simply switching to that frequency, you need to set these frequencies as soon as the user switches to it, delete them, and sort them. Use the appropriate data structure.

Round-3 (Technical Round 2): This round held for 1 hour 15 minutes and the platform was Microsoft Teams, started with Tell me something about yourself.

The interviewer told me, in this round, we will try to cover two coding questions. Started with his introduction told me about the different teams and the project they are working on.

1. Given a Random Number Generator, generating numbers from 1 to N in a stream. For Example, N = 5, it will generate any random sequence of numbers from 1 to 5. The constraints are till all the numbers in the range are not generated, any number will not be repeated. So, but the fault in this Random number generator is it restores its calculation just before outputting the last number of the sequence. So, the task is to find that missing number?
2. [Set Kth Bit for an integer.](#)

Note: I was able to solve all the two questions in the second round, still not called for the final HR round. So yeah, it's a bit of luck as well.

Verdict: Rejected.

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Qualcomm Interview Experience (On Campus)

- Difficulty Level : [Medium](#)
- Last Updated : 04 Aug, 2020

Qualcomm visited our campus for Internship to hire for both hardware as well as software profiles.

Round 1 [Written Test]:

1st Round was an online MCQ test conducted by HirePro, There were 3 sections,

Each section consisted of 20 questions of 1 mark each to be finished in 30 minutes. There was a negative marking of .25 per question.

- Section 1(30 mins):
First section was not so tough there were aptitude questions along with few quant, word coding and logical reasoning questions.
- Section 2(30 mins):
Second section completely consisted of C output based questions. Most of them were time consuming bit manipulation questions (almost 70 percent).
- Section 3(30 mins):
It was based on your preference (Computer Science/Electronics). I chose Computer Science and there were questions from DS, OS, Architecture and Networking, Digital Logic. Most questions were from C, OOPS , few from DS.

Because of GATE experience i was able to solve most of the questions related to OS,DS, CO and Networking.

About 1/4th of the total strength was selected for the next round.

Round 2-a [Technical Interview]:

In my first technical round, he asked me:

To give my introduction and then he started explaining about Qualcomm. Since he was serving Qualcomm from past 17 years so my interview was more conversational rather than deep technical questions. He asked my favorite subjects and language on which i use to code. He asked me about how C++ was started and some compiler related questions, like why i prefer to code on C++ over other programming languages.

Coming to my resume he discussed about my technical skills and then projects which i have mentioned. It took about 20 minute where he gave me some counter situations related to each project. One of my project was on Machine Learning, so basic questions from theory of Machine Learning were asked. The interviewer was very friendly and wherever I got stuck, he showed me the right path. In between he asked me to write some codes related to linked list and asked about time complexity.

Since i mentioned my internship of NTPC in undergraduate, so there were some networking questions and he was trying to confuse me between all connecting devices like Router, Switch, Hub etc. And also some questions related to TCP/IP protocol.

Then he asked me about anything which fascinated during my undergraduation. So we had a long 30 minute discussion about Blockchain. He told me about various department in Qualcomm which are

working on this technology.\xc2\xa0

\xc2\xa0

Round 2-b [Technical Interview]:

It was conducted for selected students, since i was selected for HR round just after my first round so i'm sharing my friends experience.

This was more technical and they were asked about some basic programming questions like:\xc2\xa0

- Time complexity comparison of different search algorithms
- Maximum area of Histogram.
- Implementation of Queues using linked list.
- Difference between single linked list and double linked list (in-depth analysis)
- Heapsort and Quicksort along with their analysis(time complexities)
- Delete nth element from end of linked list
- Segmentation, Paging, Demand Paging and Swapping.
- Code to traverse a binary tree in Spiral form.
- The producer-consumer problem.
- Implement thread priority using a priority queue.
- Implement Quicksort.
- One puzzle: If we have three boxes each with two balls which can be either black or white are named wrong. Their name is such that it signifies the first letter of each ball's color, which the box contained. For example a box containing a white and a black ball should have name: bb. But unfortunately all boxes are named wrongly. Find the minimum number of balls to be extracted to find out correct name of each box. Condition: each ball that is taken out should be replaced to the same box.
- Check if linked list contains a loop. Find the starting point of the loop.
- Unbounded Knapsack

Round 3 [HR Round]:

It was basic HR round, She asked me about why you continued your education after your undergraduation, What profile are you interested in, and some simple career related questions. She was nice and friendly. Now we oftenly exchange some words after i got my job.

Overall it is all about CONFIDENCE and CONFIDENCE. Have a nice smile on your face and be comfortable. Everything depends on which direction YOU want to take the interview. Computer Science is an ocean you can't know each and every concept neither interviewer want you to know each and everything. He watch how you tackle those situations and come up with best possible solution at that particular time.

Good Luck!!\xc2\xa0

\xc2\xa0

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Qualcomm Interview Experience

- Last Updated : 27 Apr, 2020

Hello Geeks!

Recently I interviewed with Qualcomm for the role of Software Engineer and in this article, I will share my interview experience with Qualcomm.

The interview process consisted of an online Hackerrank test, 3 technical rounds and 1 HR round.

All the rounds started with a brief introduction and general talk. For the coding questions asked in the technical round, you will be expected to come up with an algorithm and write a near-perfect code. There wasn't any restriction on language to be used for coding and language syntax error was excused. But mainly they look into how you approach the problem and your thought process.

Technical round 1 :

Question 1:

Given 2 numbers implement an algorithm to perform XOR operation without using XOR operator.

Question 2:

Receive a series of String and Integer inputs. Whenever a String input is received, store the input and when an integer input is received, print the string input that was received at the input attempt equal to the integer value.

Eg: Input ABC, XYZ, MNO, 2, JKL, DFG, CVB, 5

On the input of 2 XYZ is expected to be printed.

On the input of 5 DFG is expected to be printed.

Question 3: Implement thread priority using a priority queue.

Question 4: Implement Quicksort.

Question 5: Check if link list contains a loop. Find the starting point of the loop.

Followed by SQL and NoSql related conceptual questions.

Technical round 2:

Question 1: Code to traverse a binary tree in Spiral form.

Question 2: The producer-consumer problem.

Follow up questions on Mutex and Semaphore.

Question 3: Design questions
Implement the forward and back button in the browser.
Implement browser history and a quick search on the history tab?

General questions related to the project and why I want to leave my current job.

Technical round 3:

Started with an introduction to the team I was interviewed for, what they do and big picture how it

aligns with the corporate goals.

Question 1: Implement file upload functionality.

Follow-ups like: how do you change the approach if the file size is too big.

Scenario-based questions to test debugging skills.

Questions about innovations in current projects.

Followed by discussions regarding the role that I would be offered at Qualcomm, the work culture at Qualcomm and what would be expected from me.

HR round:

General questions, salary negotiations, and perks and benefits at Qualcomm.

After the interview, I received an online questioner form from HR and after a couple of days, I was asked to take the Hackerrank test. (Since I was directly called for interview, else this round would be the first elimination round)

Hackerrank round: Consisted of 3-4 coding question of easy to medium difficulty. Few MCQs based on Angular and C# concepts. (As the role was for Angular and C# full stack development)

After I aced all these rounds I was offered the job and received an offer letter after 3 weeks.

Tips: Be prepared on the fundamentals of computer science. It is important to have good preparation on data structures, OS, database concepts, multithreading to clear the technical interviews.

My Personal Notes\ *narrow_drop_up*

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Qualcomm Interview Experience | Off-Campus November 2019

- Last Updated : 06 Feb, 2020

Hello Geeks,

I applied for Off Campus placement at Qualcomm through their job portal(jobs.qualcomm.com) in October 2019. The opening was for **Fresh Grad 2019**. i.e. for fresher (no experience required).

I received a mail from them after around a month and it was for an online coding round. The coding round was scheduled on the next day.

Online Round :

The coding round was scheduled on HackerRank. There were 5 questions. The given time was 75 minutes. Difficulty level varied from moderate to high. Few of the questions were as follows.

1. In an array find a triplet with sum equal to k and the triplets must be in ascending order in the original array.
2. Find maximum xor using k numbers from 1 to n.

I gave this round and after two days I again received a mail citing that I have an interview scheduled at Qualcomm, Hyderabad (within 4 days). You don't need to worry about flight tickets, cabs or anything. Qualcomm will take care of all your expenses from the picking you up from your house before interview to dropping you off at your house after interviews.

Round 1 (F2F):

I reached the Qualcomm Hyderabad (building) and they asked me to sit. Around 200 people were there for interviews for various roles including experience roles. After around waiting for an hour they called me and I went for the interview.

Interviewer asked me about myself and my education and work experience. I told him all the things. He then started asking about C and C++ and then asked some questions regarding bit manipulation. Below are the questions asked by him.

1. What happens when a C program is executed?
2. How the memory is allocated during the lifetime of a C program?
3. What is a Global variable?
4. What are the differences between Global, Extern, Static and Volatile keywords?
5. Swap two nibbles.
6. Set Kth bit of a number.
7. Identify whether a machine is Little ENDian or Big ENDian.

As I was aware with C and C++ as well as Bit Manipulation, I was able to answer all the questions and he seemed happy with my answers. After all these questions he said Thanks and asked me to wait outside.

Takeaways from this round : They ask about C and C++ in depth. You need to explain everything in detail as they want to know how well do you understand the basic concepts.

Round 2(F2F):

Around 30 minutes after the first round, they called me again for the second round. The interviewer was very nice. He asked me whether I knew OS(Operating System) or not. I said YES and then he started the questions.

1. What is thread?
2. Difference between process and thread.
3. What is Critical section problem and how to solve it?
4. What is semaphore?
5. Deadlock avoidance and prevention.
6. What is external and internal fragmentation.
7. What is Page Fault and how to reduce it?
8. Flip Kth Bit of a number.
9. Few more questions regarding Bit Manipulation which I don't remember exactly.

I was very familiar with OS so I answered all of the question with depth details. Few coding question he asked from Bit Manipulation and one question from array. They were of easy level and I solved them. He seemed happy and asked me to wait outside for the next round. Again the catch is you need to explain everything in depth. They don't want to know how many thing you know, all they want is whatever thing you know, you should be able to explain them in depth.

Round 3(F2F):

After waiting for more than 2 hours. I was called for the 3rd round. It was the last technical round. The interviewer was me about my previous experience details and reason for switching organisation. He asked me questions from ML as I mentioned it in my CV. Asked me to explain my projects(academic as well as professional one) in detail. Then he started asking question from OOPs.

1. What is polymorphism?
2. What is inheritance?
3. Diamond Problem.
4. Virtual Function and it's use.
5. Generic templates.
6. Some questions on stack and queues.
7. One question on graph. There are n courses that needs to be completed by a student. Few courses depends on others. i.e. y is dependent on x means you can't avail course y before availing course x. i.e. both x and y can not be in the same semester. x needs to be in a prior semester than y. Given number of courses and all the dependencies find the minimum number of semester for the student to complete all the courses satisfying all the dependencies.

Example:- Input:- n = 7

[means there are 7 courses namely c1, c2, c3, c4, c5, c6, c7],
dependencies, 3 1, 4 6, and 7 5 [means c3 depends on c1, c4 depends on c6 and c7 depends on c5]

number of dependencies k = 3 [means there are 3 dependencies]
dependencies, 3 1, 4 6, and 7 5 [means c3 depends on c1, c4 depends on c6 and c7 depends on c5]

Output:- output should be the minimum number of semesters required to complete all courses. in this case the output = 2
semester 1 :- c1, c2, c5, c6
semester 2 :- c3, c4, c7

This was a very tough one I somehow answered it using Graphs by drawing cycles. He was just

curious about my approach. After this question he asked me to ask about Qualcomm and why do I want to join Qualcomm. After he said "Thanks for coming" and told me to leave and the HR will contact me in future, if needed.

After 3 rounds, the interview was over and they escorted us to the Airport where we had our returning flight.

After 2 weeks, I again received a mail from the HR saying that my HR round will be telephonic

Round 4 HR(Telephonic):

This round was telephonic, the HR asked me why I am leaving my previous job and why do I want to join Qualcomm. What are my expectations. She asked me about my previous package and offered their package according to their standards. She said that I have been selected for employment. Gave me a form to fill and told me that I will receive an offer letter from their side within 2 weeks.

I was very happy after listening these words. I was trying hard to switch to a Product based company in recent times(as I was in a service based company). Finally I got what I wanted. After two weeks I received offer letter from their side. She asked me to decide the joining date. I picked 27th Jan as the joining date.

I joined Qualcomm on 27th Jan 2020 and now here I am working at Qualcomm. It took around 3 months from applying at Qualcomm to joining Qualcomm. The interview process was very lengthy but at every point they will provide you with all the things that you need. During the entire procedure you don't need to worry about anything. They will take care of everything.

Important Topics: C/C++, OS, OOP, Bit Manipulation, Arrays, Data Structures.

Tips & Tricks: Be patient, the entire process will take time. Always be confident during the interview. If you don't know something just say NO. Do a in-depth study of the topics because whatever topics you pick they will ask you to explain it deeply.

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Qualcomm Interview Experience | Off-Campus

- Difficulty Level : \nBasic
- Last Updated : \n10 Sep, 2021

I have applied for a Job in \xc2\xa0 Qualcomm through its website. \xc2\xa0

Interview Process consists of 5 rounds consisting of 1 online hacker rank assessment, 3 technical rounds, 1 HR round. \xc2\xa0

Hacker Rank test has 30 Questions in which 10 are coding questions \xc2\xa0 related to arrays, strings, vector, map etc., and remaining are MCQ where we need to guess output based on a given code snippet. \xc2\xa0

After clearing assessment they called to hyderabad for technical discussion of 3 rounds. \xc2\xa0

Round 2: \xc2\xa0

1. Asked about \xc2\xa0 my current project work, technologies that I use. Why you want to leave your project. \xc2\xa0
2. What are memory leaks / crash how to overcome them. \xc2\xa0
3. Memory layout of a C program and storage classes \xc2\xa0 in C and scopes of variables. \xc2\xa0 <https://www.geeksforgeeks.org/storage-classes-in-c/> \xc2\xa0
4. Program on reversing linked list \xc2\xa0 <https://practice.geeksforgeeks.org/problems/reverse-a-linked-list/1>
5. CPU scheduling Algorithms and efficient algorithms for Real Time Operating systems. \xc2\xa0
6. Memory management Techniques, paging, page fault, segmentation, Translation look \xc2\xa0 aside buffer. \xc2\xa0
7. Structure padding. Why we use it ? Explain with example. \xc2\xa0 <https://www.geeksforgeeks.org/structure-member-alignment-padding-and-data-packing/> \xc2\xa0
8. Implement a 2 dimensional array using pointers . \xc2\xa0

Round 3: \xc2\xa0

\xc2\xa0

1. ARM processor Architecture and its operation modes.
2. Implement your own memcpy ? What is the problem with memcpy. ? \xc2\xa0 <https://www.geeksforgeeks.org/write-memcpy/>
3. Program to find middle element in less time complexity \xc2\xa0 <https://www.geeksforgeeks.org/write-a-c-function-to-print-the-middle-of-the-linked-list/>
4. How the C program compile. Explain all the phases ? \xc2\xa0 <https://www.geeksforgeeks.org/compiling-a-c-program-behind-the-scenes/>
5. Stack Smashing and how does function calls store in stack .
6. Difference between Embedded System and Generic OS.
7. What is little Endian and Big Endian. How to check for it ? \xc2\xa0 <https://www.geeksforgeeks.org/little-and-big-endian-mystery/>

Round 4:

1. Difference between thread and process <https://www.geeksforgeeks.org/difference-between-process-and-thread/>
2. What is critical section, dead lock prevention techniques.
3. Priority inversion and techniques to avoid it.
4. Modify a bit at given position in for a number<https://www.geeksforgeeks.org/modify-bit-given-position/>
5. Implementation of BST <https://practice.geeksforgeeks.org/problems/insert-a-node-in-a-bst/1> <https://practice.geeksforgeeks.org/problems/search-a-node-in-bst/1>
6. Swap nibble in a byte.<https://www.geeksforgeeks.org/swap-two-nibbles-byte/>
7. IPC mechanisms, OOps Concepts, mutex, semaphores User level & Kernal level space.

Round 5:(HR)

1. why I want to change the company?
2. why I want to join Qualcomm?
3. She explained about the work culture and about qualcomm.
4. What are my strengths and weakness.

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Qualcomm Interview Experience (Off Campus)

- Last Updated :10 Sep, 2021

Round 1: The first round was Telephonic, he asked me a few questions.

- Asked about my current role
- Question on my project
- OOPs questions
- Data Structures questions

This round took 30 minutes, he was patient with answers and asked about my comfortable languages, if I have done any project on Python? After 2-3 days I was called for face to face interview.

Round 2: This round was about my current role and CV related questions. It went well, so I was asked to wait for the next round.

Round 3: The interviewer started with my CV and asked about my college project. Asked to write down the algorithm which I used. More questions on the implementation.
Move to data structure, asked a few questions then gave a few problems like:

- [Lowest Common Ancestor in a Binary Search Tree.](#)
- [Sorted Linked List to Balanced BST](#)

Moved to OOPS concepts asked me about Polymorphism, Virtual Class, Overloading, Inheritance, Difference between class and object

- Diamond problem in OOPs, write down the code and solve the problem

This round took around 1 Hour 30 Minutes to complete.

Round 4: Asked me few Operating systems questions plus Thread Vs Process with examples and Scheduling Algorithms plus Watchdog timer after that few coding questions like:

- [Function to check if a singly linked list is palindrome](#)
- [Clone a linked list with next and random pointer](#)

One puzzle which I can't exactly remember but I did it. He asked basic questions on Android as it was written in my CV. Discussed on the versions of Androids, he was really cooperative and helped me to answer.

Round 5: This round was a bit tricky, asked about almost everything from my CV. Briefly explain what the job is about and asked about business intelligence as it was related to my previous work. Gave a scenario of Android testing, asked me about test cases.

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Qualcomm On-Campus Interview Experience(2019)

- Last Updated : 29 Jun, 2020

Round 1: ONLINE ROUND: 3 sections, 20 questions each (Time: 30 mins/section: 90 mins overall, Contains negative marking)

Section 1: (Aptitude) : Questions were from topics like: Time, Speed and Distance, Time and work, Number Systems(Basic level), Boats and streams, Trains, Averages, mixtures, Probability(1 question: basic level), permutation and combinations. Practicing solved questions from RS Agrawal for these topics is more than enough.

Section 2: (C Programming MCQs): Output finding questions from topics like pointers, switch case(eg: what if `case` is written inside an `if` condition), data types, functions, linked list based fill in the blanks code snippets, and some vague ambiguous questions.

Section 3: (Core CS MCQs): Basic questions of CS from topics like OS(synchronisations, memory management), Computer Organisation(set associative Cache memory: calculating tag memory size), DBMS(1 question was from B+ tree), SQL queries, and basic data structures and algorithms(time complexity etc).

Preparation tip: For section 2 and 3 practice questions from GeeksForGeeks as much as possible, in each section solve at least 14-16 questions correct (**THERE IS NEGATIVE MARKING IN THIS ROUND SO ATTEMPT QUESTIONS ONLY IF YOU ARE CONFIDENT ENOUGH**). Practice solving questions faster as time allotted may not be enough for some students. There might be sectional cut-off so attempt all the sections equally.

Round 2:(Technical Round-1)

- Coding: Basic questions like: WAP to find loop in a Linked List, finding merging point, removing loop etc, WAP for race condition. (I was able to solve all the questions)
- OS related question: Since Real Time Systems was written in my resume, the interviewer asked me questions like difference between conventional and real time sys, types of real time sys, what is priority inversion and priority inheritance. (Explained in detail by giving examples)
- Asked me to explain C memory map, the interviewer gave a program and made me point out which variable goes to which part of memory. (Explained him correctly).
- Asked me what are the different intermediate files while compiling and running a C program.
- WAP to find whether a machine is little endian or big endian. (Explained him my approach, but he stopped me while I was trying to code it)
- Apart from this, general discussion on my projects and resume.

Round 3:(Technical round 2) In this round the interviewer was friendly and first asked me to introduce myself.

- Bit-Manipulation question: swap MSB and LSB of an integer, asked me to code it. (Explained him my approach and again he stopped me in between while I was writing code)
- Gave me one aptitude question on time, speed and distance.
- Asked me about my biggest fear of my life.
- Virtual functions
- functions overloading, overriding.
- Detailed discussions over my projects.
- Asked me whether I had microprocessor as my subject or not.

ROUND 4:(HR Round):

Just like any other HR interview:

- Tell me something about yourself.
- what makes you different from other candidates.
- strengths and weakness.
- biggest challenge faced till now.
- Why do you want to join Qualcomm.
- what is the name of recently launched 5G chip of Qualcomm.

For HR round specially read about the company's background and products of that company, be prepare to ask some questions about the company or your role in the company.

There were few panelists who were grilling candidates in topics like OS and there were questions like write a code for implementing autocomplete text box. Some panelists were also asking general puzzles (solving 20-25 puzzles from geeksforgeeks is enough), questions on macros in C, inline functions etc.

Technical Round Preparation tip: Be ready to face questions on your resume. Read interview experiences on geeksforgeeks as much as possible. Don't say I dont know to any question, at least try and explain whatever your approach is to the interviewer and think out loudly for every question. The difficulty level of questions depends on which interviewing panel you get. Having systems and hardware oriented projects in your CV would help you a lot in Qualcomm interview process.

Result: 6 students were selected including me.

Thanks to geeksforgeeks for providing every possible resource for interview preparation that too in such an organised manner.

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Qualcomm Interview Experience 2019 (on campus)

- Last Updated :29 Aug, 2019

Round 1 Written test

In this round, we were judged on aptitude, basic concepts of core computer science, output based questions in C (all medium level).

Round 2 Technical 1

In this round, my basic programming skills, Operating System concepts and Computer Networks concepts were tested.

Coding

Explain the logic and implementation of finding a intersection point in two linked list (<https://www.geeksforgeeks.org/write-a-function-to-get-the-intersection-point-of-two-linked-lists/>).

I explained two approaches,

1. Using extra space, i.e. use a HashSet, add all the elements of the first list and then add the elements from the second list. Whenever we find an element which is already present in the HashSet, we find the intersection point.

Obviously, the interviewer asked me not to use extra space. So I explained the other approach,

2. Find lengths of both the linked lists and find the difference between both the lengths. Traverse the longer linked list by the difference and then traverse both the list together and in each iteration check if both the nodes are equal. If they are equal, we have our intersection point.

He was satisfied with the answer but he did not want these many operations, so he asked me another approach. While I was thinking about the solution, he asked me if I can detect a loop in the linked list. After I told him about the loop detection using fast and slow pointers, he asked me if I can use the loop detection in the solution of the first problem. The answer to that is to connect the last node the linked list to the first node of any of the linked list which will just create a loop in the linked list and the problem boils down to finding the loop node in the linked list.

Operating System

The interviewer asked me

- Priority Inversion and ways to tackle it
- To explain race condition, deadlock, critical section problem with examples
- Questions related to threads and processes
- Design the memory layout of a C program that he wrote

Computer Networks

He asked me to explain all the layers of the TCP/IP protocol suite and went deep in the data link layer (responsibilities and methods used in it).

Project The interviewer asked me to explain one of my projects in detail.

Round 3 \xe2\x80\x93 Technical 2

This round was also about coding and operating systems.

Coding

The interviewer asked me to explain and write production level code for this <https://www.geeksforgeeks.org/check-for-balanced-parentheses-in-an-expression/> problem.

Operating System

- A lot of questions were asked on shared memory systems (like how exactly the memory is shared between processes in different scenario)
- I don\xe2\x80\x99t remember the question completely but it was something like \xe2\x80\x93 How to copy the contents of two clocks one of which changes every millisecond while the other changes every second in two registers without using any temporary registers. I could not answer it properly but he was satisfied with my thought process.
- A few more questions on virtual memory and paging.

HR round

The last round looked like a formality where the HR just asked me to introduce myself, asked my preferences in terms of work and location. I also asked a few questions about Qualcomm and the work I am gonna do there.

Final result

Received placement offer for the position of Engineer (Software).

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Qualcomm Interview Experience | Off Campus

- Last Updated :10 Sep, 2021

I got a referral through a college senior. I had one year of experience in the industry when I applied.

Round 1:

Round 1 was telephonic round. Most of the questions were focused on C and operating systems.

1. Tell me about your project work in the current company.
2. What are double pointers. What is their use?
3. What are wild pointers and void pointers? When are they used?
4. What is priority Inversion?
5. What are semaphores and what are spinlocks?

I could answer some of the questions. Anyways I was selected for further rounds.

Round 2:

Next round was held in Qualcomm's Hyderabad office. They arrange everything from cab to flights and food for you.

I had 4 one-on-one interviews taken by different people working in different projects there. All focused on the same topics, hardcore C and operating systems. Apart from that they ask some basic-medium level DSA questions on Strings, Linked Lists and Bit Manipulation.

Interview 1: He asked the following questions.

1. Given 2 strings find number of occurrences of one in another.
2. Why is virtual address used?
3. What is the difference between physical and virtual address.
4. Given a number write a macro to set/unset a bit at a particular position k.
5. Detect a cycle in a linked list.
6. What are memory segments?
7. I have defined 2 global variables, one is initialized and another is uninitialized, in which segments would they be stored?

Interview 2: He asked the following questions.

1. Write your own memcpy function handling all the corner cases.
2. Switch the values in two variables without using a third variable.
3. <https://www.geeksforgeeks.org/extract-k-bits-given-position-number/>
4. What is the use of pure virtual functions in c++.
5. What is static and dynamic linking. How does a compiler know if a function belongs to a statically linked source or a dynamically linked source.
6. Some questions based on project.

Interview 3: He asked the following questions.

1. What is a volatile/non-volatile memory.
2. What is RAM/ROM.

3. Given a value, delete all nodes from a linked list having that value.
4. He wrote small program having a number of variables and asked me to tell the where in the memory layout would each variable be present.

Interview 4:\xc2\xa0 He seemed like a senior manager. He mostly asked behavioral questions.\xc2\xa0

1. Why do you want to switch?
2. What kind of work interests you?
3. What are the different stages in the development cycle of a software.
4. What do you want your role to be like?
5. Where do you imagine yourself after 5 years.

One all these rounds were over, the HR told me I would have to give a hackerrank test week.\xc2\xa0

Round 3:\xc2\xa0

Online 1 hr 45 mins hackerrank test. Consisted of 6 DSA questions having easy-medium difficulty. I could do 4.\xc2\xa0

I would like to thank geeksforgeeks for all the help in my interview preparation.
\xc2\xa0

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Qualcomm Interview Experience

- Last Updated :13 Aug, 2019

Round 1:

This round consists of 3 sections each containing 20 questions which have to be solved in 30 min.

After 30 min each section was switched to next automatically. The marking scheme for this round was +1 for the correct answer and -0.25 for the wrong answer.

Section 1: Quantitative Aptitude, Logical Reasoning, Data Interpretation & Verbal. The data interpretation questions were really difficult, the logical aptitude questions varied from medium to hard range.

Section 2: Basic computer programming questions related to pointers, structures, memory-related problems and some output based questions, questions from bit manipulation. The difficulty level varied from easy to medium.

Section 3: Computer Science problems related to DBMS, operating system, computer networks. Questions level varied from easy to medium.

You can prepare from <https://www.geeksforgeeks.org/placements-gg/>.

The score in this test matters a lot. Try to answer only the questions you know.

Round 2:

First Technical round: He asked me to choose any one of my projects and explain in detail.

1. Structures and unions, the concept of padding in structures.
2. How memory is allocated using calloc and malloc functions.
3. How is *free* keyword different from *delete*.
4. How does free() know the size of memory to be deallocated?
<https://www.geeksforgeeks.org/g-fact-88/>
5. How does a process look like in memory, the difference between *global variables* and *static variables*?
6. Different scopes of variables and to explain when each of them is used and why, when and how do we use the *extern* keyword.
7. What is a *void pointer* and how do we use it.
8. Threading concept and how stack behaves in multi-threading environment and few pthread concepts.
9. Page fault and steps followed to handle it.
10. How to check if a given number is a power of 2, only using bitwise operators.
11. N meetings in a room. <https://www.geeksforgeeks.org/activity-selection-problem-greedy-algo-1/>
12. One puzzle: There are three boxes, one contains only apples, one contains only oranges, and one contains both apples and oranges. The boxes have been incorrectly labelled such that no label identifies the actual contents of the box it labels. Opening just one box, and without looking in the box, you take out one piece of fruit. By looking at the fruit, how can you immediately label all of the boxes correctly?

Then he asked me to ask any questions if I had. I asked a few.

Second Technical round:\xc2\xa0He asked some questions from my resume. He then asked me to explain one of my Machine Learning projects.

1. Different System calls and why do we use them.<https://www.geeksforgeeks.org/operating-system-introduction-system-call/>
2. Difference between Kernel and Operating System.
3. Different phases of Compiler and in-detail explanation of each of the phases.
4. How compiler does intermediate code optimization?
5. What are *Static* and *Dynamic* Libraries?<https://www.geeksforgeeks.org/static-vs-dynamic-libraries/>
6. Why do we use Cache Memory?
7. What is Cache Coherence Protocol and when do we use them.
8. Difference between *Scheduler* and *Dispatcher*.
9. What are the applications of *Unions*? and problem-related to *Unions*.
10. How to detect and remove the loop from the Linked List.

Round 3: This\xc2\xa0was HR round. First, she asked to give a brief introduction of myself and why I want to join Qualcomm. Few background questions and which city I would prefer to work. She also asked me about relocation. She then asked me to ask any questions if I have. I asked a few.

My HR round lasted for 20 minutes.

The result was announced in the evening and\xc2\xa022 of us got the full-time offer(both Software and Hardware).

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Qualcomm Interview Experience (On campus)

- Last Updated : 01 Aug, 2019

Round 1: Online Test

The first round is the Online Test. It consists of 3 sections:

Section 1: Quantitative Aptitude, Logical Reasoning, Data Interpretation & Verbal. Prepare from <https://www.geeksforgeeks.org/placements-gg/> or <https://www.pariksha.co/> . Try to be quick while solving this section.

Section 2: Programming. Mainly outputs of C codes were asked. Clear concepts of pointers is required. Practice from <https://www.geeksforgeeks.org/c-language-2-gg/pointers-gg/> and <https://www.geeksforgeeks.org/c-language-2-gg/advanced-pointer-c-gg/>

Section 3: Computer Science (for CS students). Prepare Operating Systems, Data Structures and Algorithms for this section.

I attempted 10 from Section 1, 15 from Section 2 and 15 from Section 3. The marking scheme was +1 for 1 correct answer and -0.25 for 1 wrong answer. Each section was of 30 mins and after this time interval, section is switched automatically.

About 20 students for my profile were shortlisted in this round.

Round 2: Personal Interview

For the PI, we had to go to NIT Durgapur.

The first round was the first technical interview. The interviewer was quite friendly and asked for my introduction first. Then, he asked about my projects. I explained him one of my projects for about half an hour till he was satisfied with my explanation. Then, he asked about my hobbies which included playing chess. He gave me some puzzles. They were similar to this : <https://www.quora.com/In-climbing-a-round-pole-of-80-metres-height-a-monkey-climbs-5-metres-in-a-minute-and-slips-2-metres-in-the-alternate-minute-How-much-time-would-the-monkey-take-to-get-to-the-top-of-the-pole> and Name three consecutive days without using the words Monday, Thursday, or Sunday ? Answer is Yesterday, today and tomorrow. Then he asked me some questions on pointers and C. Basic questions on linked lists and trees were also asked. In the end, he asked me if I had any questions and I asked him to explain my profile which he did very well.

The shortlisted candidates were sent for the second technical interview. The second technical interview took about 45 minutes. In the beginning the interviewer told me to introduce myself and give an overview of my CV. He asked about my projects and internship work in detail. He asked me to draw the database of one of my projects and then some python questions. He also asked me some basic algorithms. Lastly, he asked me about my final year project and I explained it to him in details.

Some of my friends had a third technical interview too and some others were asked questions on OS in their second technical interview.

Round 3: HR round

This round was basically like a formality but I would urge everyone to take this round seriously too as not everyone who made it to the HR round were selected. The interviewer was very friendly and

asked basic HR questions. In the end, she asked me if I had any questions and I asked her how it is to work at Qualcomm and I got a very positive answer.

Finally, the results were mailed to our PC and me along with 4 others from CS were selected.

Also, remember to maintain a happy and pleasant face throughout each PI.

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Qualcomm Interview Experience (On-Campus Drive)

- Last Updated : 31 Jul, 2019

Summary-

Round1: Test consists of 3 parts with 60 questions 90min. Marking scheme is +4 & -1.

Round2: Technical interview1 (30 min)

Round3: Technical interview2 (30 min)

Round4: HR (15 min)

Detailed-

Round1(Online Test) There is a different qualifying cut for each section.

The test consist of 3 sections: All need to attempt in order, we are allowed to switch between questions of the same section but cannot switch between sections.

Section1: This section consists of basic aptitude questions like train, permutation & combination, probability, boat, work, etc.

Section2: This section contains the questions of code snippet(given a code what is the output)

Section3: This section contains basic Gate level questions mainly focused on DS, Algo, OS, CO, Networks.

Round2(Tech interview1) It was a one to one interview. He asked me to write pen-paper codes, questions from C, OS, CO, etc.

Questions:

1. Reverse a stack without using extra space.
2. Construct a tree from pre-order and in-order traversal.
3. Given an array which has numbers from 1 to n. There are 2 numbers replaced with 0. Find both numbers in $O(n)$ time and $O(1)$ space.
4. What is priority inversion?
5. Let us suppose there are multiple .c files and you want a function from a particular file can only be accessed in that c file only. (Ans- Use static keyword)
6. What is Volatile keyword?
7. A lot of questions from IPC, Cache, Paging.

Round3(Tech interview2) It was also a one to one interview. I was the last person left for round 2 and it was around 9 pm, so everyone was drained.

Interviewer: Do you know how to construct a balanced tree.

Me: I only know that we can use a red-black tree or AVL tree, but I don't know how they work.

Interviewer: Ok, then what do you know in Algorithms.

Me: Sorting, Graphs.

I want him to ask from graphs but he started with Linked list.

Questions:

1. He asked all the possible questions from the linked list starting from construction of SLL to finding loops etc.
2. Then he asked me questions from C programming, OS, CO.

Round4(HR) This was more of one-sided. HR told me about the company asked me about locations preferences etc.

Both round 2 and 3 last up to around 30min. All the questions were basic level instead of 2-3 fancy terms that I ended up answering I don't know.

Suggestions- They asked a lot of questions from oops, data structure, C programming, os, co, etc.

One panel was also asking questions from ML like PCA, LDA, SVM, etc.
They also asked riddle-like (google them for details)-

1. King and 100 poison bottle
2. Bridge crossing (person with different time and one torch)
3. Measure time from the rope, sand clock, etc.

Note: There were other questions that I don't remember.

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QualComm Campus Interview Experience

- Last Updated :19 Jul, 2019

Qualcomm had the following four rounds of interview process

1. Aptitude + Programming MCQs + Technical MCQs
2. Tech Interview 1
3. Tech Interview 2
4. HR Round

\xc2\xa0

Round 1:

It had 3 sections

1. i) General aptitude (medium level)\xc2\xa0
2. ii) Programming MCQs : Many output based questions, object oriented concepts(interfaces, classes), pointers, operator precedence, scope and lifetime of variables, storage classes related questions.

iii) Technical MCQs: Mainly operating system, computer architecture and\xc2\xa0 data structures related questions were asked.

\xc2\xa0

Note: Questions were easy and a few were tricky. The key to clear is to manage the time and mark only the questions you know (as each question had 0.25 negative marks).

\xc2\xa0

Round 2: Technical Interview 1:

? He asked me to introduce myself and asked why did I leave job and took admission in M. Tech.

? He started asking the third project which I had mentioned in the resume which was related to GPU. He didn't go in depth of the project and it looked like he just wanted to know if I recall the project :P.

? He then asked me, if I am comfortable with C++. I said yes, I'm pretty comfortable.

? He asked to explain the concept of VTable. He expected me to know where it is used and how is it implemented. I started explaining him the dynamic polymorphism through virtual function and explained how Vtable and the virtual functions are mapped and also I explained him about vptr concepts used.\xc2\xa0

<https://pabloariasal.github.io/2017/06/10/understanding-virtual-tables/>

? He then asked me to write a singleton class. I explained to him the concept but he insisted me to write a class for the same. I was able to answer it by using static bool variable. Although it was not perfect, he seemed okay with the implementation.

<https://www.geeksforgeeks.org/singleton-design-pattern/>

? What is volatile keyword?. Explain any other compiler optimization techniques.

<https://www.geeksforgeeks.org/compiler-design-code-optimization/>

? Questions related to fragmentation, paging, cache memory, threads, mutex, counting semaphore, binary semaphore were asked.

? What are the disadvantages of inline functions?. I explained to him what are inline functions and I was thinking about its disadvantages but he didn't let me think and said, thanks for your time.

<https://www.geeksforgeeks.org/inline-functions-cpp/>

Interview went for around 25 mins. For others it went anywhere from 25-60mins.

Round 3: Technical Interview 2

? This round was very easy for me. As I had computer architecture in resume, he asked me to explain how CPUs work. I wrote the cpu architecture diagram and explained each component. He expected me to explain instruction execution cycle in detail(stages, addressing modes etc.,). He asked if ARM uses the same pipeline stages and difference between RISC and CISC.

? Explain the role of MMU.

? Page size in linux.

? 2D array dynamic memory allocation: <https://www.geeksforgeeks.org/dynamically-allocate-2d-array-c/>

? He asked two famous puzzles.

1. i) <http://www.mytechinterviews.com/apples-and-oranges>

ii) <https://www.geeksforgeeks.org/puzzle-18-torch-and-bridge/>

Interview ended in 20-25mins.

Round 4: HR

? Introduce yourself

? He did not ask me any further questions and started explaining about Qualcomm and its criteria. I asked questions in between to clarify many doubts I had(related to team allocation, kind of work, team preferences, location preferences, internship related etc.,).

HR was also a filtering round, a few students who gave HR were not in the final list (Not sure about the criteria used for the final list).

Feel free to ping me for any help at <https://www.linkedin.com/in/sujay-raj-728376102/>

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Qualcomm interview experience (fresher) 2019

- Last Updated : 19 Jul, 2019

Background \xe2\x80\x93 Computer engg. branch

Round 1:

Online test divided into 3 sections :

Aptitude \xe2\x80\x93 easy to moderate

time would be a constraint

Programming \xe2\x80\x93 many difficult output questions on C

Theoretical \xe2\x80\x93 consisted questions from OS and computer architecture mainly

Marking: +4/-1

Round 2:

Started with brief introduction and proceeded with detailed discussion on one of my projects. The interviewer asked to explain the project through a block diagram and then directed the discussion towards threading and other OS concepts.

Discussion on different layers of OSI model and TCP/IP.

One coding question to write code on a sheet:

Count the number of contiguous bits occurring more than once.

He then asked to explain how the CPU works. He then asked to design a solar car and then optimize on cost.

Round 3:

This was mostly on operating systems \xe2\x80\x93 system calls, virtual addresses \xe2\x80\x93 what are they and why they are needed, TLB working, paging, process\xe2\x80\x99 view of memory etc

He gave this structure and asked to compute its size:

```
struct abc{\r\n    int a;\r\n    char *b;\r\n    struct abc d;\r\n    int e;\r\n};
```

(The answer is that the compiler would not be able to determine the size and give compilation error)

Coding ques:

set a bit at any position

clear a bit at any position

clear the first set bit (MSB) without traversing all the bits[given a string, there is only 1 character that occurs once, rest can occur any number of times. Find that unique character without using extra space.](#)

Round 4:

Discussion on projects and a few questions on networking

Coding ques:

given two strings, delete the common words, i.e the words occurring in both the strings

Round 5- HR

Brief about education and background.

Why Qualcomm?

Plans for higher studies etc..

For technical rounds, be prepared with computer architecture and OS.

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Qualcomm Interview Experience | (Pool Campus Drive)

- Last Updated :19 Jul, 2019

Around 30 students attended the Round 1 (B.Tech + M.tech of my college)

Round 1: Online Test

It has 3 sections. Each section has 20 questions with +1 for correct answer and -0.25 for wrong answer.

Section I: (Aptitude)

Questions were from following areas/topics:

1. Works and wages
2. Time and distance
3. Pie chart
4. Data Interpretation

There were some 1-2 other topics also.

Section II: (Programming- C based objective)

Questions were based on the following topics:

1. Pointers and typecasting of them.
2. Operators precedence and associativity
3. Recursion
4. Static variable
5. Structures
6. Reference variable
7. Macros

Section III: Technical (Branch wise questions)

For me, I opted Computer Science option according to my branch.

Questions were to test one's technical knowledge of CS Subjects (Gate level questions)

1. OS based questions (Threads, synchronization)
2. C / C++ based questions
3. Computer Architecture based

2-3 more topic questions.

Each section was of 30 minutes. After 30 minutes, the timer expires for that section and next section comes.(You cannot switch between sections and cannot go back to previous section even), so manage your time wisely. Attempt as much questions as you can taking care of negative marking.

After Round 1, 7 students were selected for further rounds.

For all further round, they called all 7 students of my college for further interviews to their Hyderabad office. Qualcomm made all travel arrangements/expenses for attending the interviews .

Round 2: Technical (1:1 interview) 50 min.

It was a pool campus drive for Full time employment (Batch 2019 B.Tech / M.Tech).

Students from 3 colleges were called at Qualcomm office (Hyderabad): IIIT Delhi, Nirma

University and Lovely Professional University.
Around 40 students were called.

Questions:

1. Tell me about yourself
 2. Rate yourself in OS.
 3. What do you know in OS.
 4. What is process, thread? Difference Between process and thread.
<https://www.geeksforgeeks.org/operating-system-thread/>
 5. What resources does a process use? How does the process resources information is maintained?
<https://www.geeksforgeeks.org/operating-system-process-table-process-control-block-pcb/>
 6. What resources do threads use?
<https://www.geeksforgeeks.org/operating-system-thread/>
 7. What should we do if we do not want to share a file among threads?
 8. What are locks?
<https://www.geeksforgeeks.org/lock-variable-synchronization-mechanism/>
 9. What is mutex ? What is semaphore? Difference between them.
<https://www.geeksforgeeks.org/mutex-vs-semaphore/>
 10. Mutex vs Binary semaphore? Are they logically equivalent
<https://stackoverflow.com/questions/62814/difference-between-binary-semaphore-and-mutex>
 11. What is virtual memory and why do we use it?
<https://www.geeksforgeeks.org/virtual-memory-operating-systems/>
 12. What is demand paging? How to map logical to physical address?
<https://www.geeksforgeeks.org/virtual-memory-operating-systems/>
 13. Which address is known to CPU?
 14. What is volatile keyword? Why do we need it?
<https://www.geeksforgeeks.org/understanding-volatile-qualifier-c-set-1-introduction/>
<https://www.geeksforgeeks.org/understanding-volatile-qualifier-in-c/>
 15. What is static variable ? Show by example.
<https://www.geeksforgeeks.org/static-variables-in-c/>
 16. Where does static variable get stored?
<https://www.geeksforgeeks.org/memory-layout-of-c-program/>
 17. What is static function?
<https://www.geeksforgeeks.org/what-are-static-functions-in-c/>
 18. What is Dangling pointer?
<https://www.geeksforgeeks.org/dangling-void-null-wild-pointers/>
 19. What is memory leak? Give example by code. In what scenario memory leak is critical and problematic?
<https://www.geeksforgeeks.org/what-is-memory-leak-how-can-we-avoid/>
- It is critical where the system reboot is infrequent and are very costly affair . Example: servers
20. Rate yourself in C
 21. Set ith bit of a number ? Input is the number and position . Check all invalid input cases. [Set the K-th bit of a given number](#)

Invalid cases like inputting wrong position.

22. Reset ith bit of the number <https://stackoverflow.com/questions/47981/how-do-you-set-clear-and-toggle-a-single-bit>

Round 3: Technical (1:1 interview) 40 min

1. Check whether a number is power of 2 or not (Using Bitwise operators)
2. Find Middle node of singly linked list (All unoptimised /optimised ways)
3. Memory map of the process. <https://www.geeksforgeeks.org/memory-layout-of-c-program/>
4. Tell me about process scheduling algorithms? What is round robin algorithm? <https://www.geeksforgeeks.org/gate-notes-operating-system-process-scheduling/>
5. Spinlocks vs mutex vs semaphore <https://practice.geeksforgeeks.org/problems/explain-spin-lock>
6. Tell about bitwise operators. Asked some questions on it. <https://www.geeksforgeeks.org/bitwise-operators-in-c-cpp/>
7. Print odd number by one thread and even no by other. How u will implement it ?
I told him using semaphores, wait() and signal()
8. C programming output question: Based on various type of pointer typecasting.
9. C programming output question: Based on local vs global variable precedence.
10. What is priority Inversion?
<https://www.geeksforgeeks.org/priority-inversion-what-the-heck/>
11. Structure padding and packing. Who do this padding and packing(compiler, cpu etc.)?
<https://www.geeksforgeeks.org/structure-member-alignment-padding-and-data-packing/>
12. Internship work discussion
13. Why did you do the teaching for 5 years and then did M.Tech? (I taught to Undergraduate students in GEHU, Dehradun for 5 years)
14. Then Interviewer asked do you have any questions for me?
I asked about his work and his team at Qualcomm .

Round 4: HR interview -20 min

1. When did you arrive at office?
2. Didn't you attended the Qualcomm drive when we came to your college for your batch?
3. Why reason do you think that you were not able to qualify Online test at that time and you qualify this time?
4. Do you like the work which the interviewer has discussed with you?

5. \xc2\xa0\xc2\xa0Reasons for doing Teaching Job for 5 years?

6. \xc2\xa0\xc2\xa0Discussion about family

7. \xc2\xa0\xc2\xa0Discussion about relocation.

After 2 days, result came to Placement office and I was selected .

Feel free to ping me for any help at www.linkedin.com/in/dilip-kumar-gangwar

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Qualcomm Interview Experience (Internship)

- Difficulty Level : \n[Medium](#)
- Last Updated : \n19 Jul, 2019

Round 1: Online Exam

Exam having 60 question in total having 3 section each having 20 questions.30 minutes for each section.

The marking scheme is +1 for the correct answer and -0.25 for the wrong answer.

Section 1 : Quantitative Aptitude

Section-2:Logical Reasoning

Section-3:Data Interpretation & Verbal

Round 2: Technical Interview

- 1.Tell me about yourself.
2. Brief discussion on projects.
3. OOPS basic concepts.
- 4.[Find loop in a linked list and find the length of that loop.](#)
- 5.[write-a-function-to-get-the-intersection-point-of-two-linked-lists](#)
- 6.[finding duplicates in array](#)
- 7.Difference between mutex and semaphore.
- 8.Difference between process and threads.
- 9.[Conditions for Deadlock.](#)
- 10.Examples of internal and external fragmentation.
- 11.Write a program to implement memcpy() on your own.
- 12.Basic questions on stack and queue.
- 13.Write code snippet for function pointers.
- 14.How to differentiate between shared and private variables in thread in multithreaded environment?
15. Basic server client architecture in TCP.
- 16.Sorting algorithm complexity analysis.
- 17.Discussion on Implementation approach in project.
18. Do you have any questions for me?

\xc2\xa0

I got selected in the end.

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Qualcomm Interview Experience (Off-Campus)

- Last Updated :19 Jul, 2019

One of my friend who is there at Qualcomm refereed me. I received a mail from there side to give the written test. It was on HirePro platform.

Round 1: It consist of 3 sub-sections

1) Aptitude Section(20 MCQ Ques/30min with negative marking)

Questions in this section are from the following topics:

- Work and wages
- Seating arrangement
- Profit and Loss
- Percentage
- Time and Speed
- Data Interpretation
- Ration and Proportion
- Coding Decoding

There are 2-3 other topics as well. For this particular section you can prepare from IndiaBix or geeksforgeeks.

2) Programming Section(20 MCQ Ques/30min with negative marking)

Questions in this section are from the following topics:

- Pointers(Focus on precedence and associativity)
- Enumeration in C
- Union and Structure
- Macros
- Some output question based on a pseudo code
- Static keyword
- Structure Padding
- Some OOPs concept related Question

There are some another questions related to C/C++. Again you can prepare from geeksforgeeks.

3) Technical Section(20 MCQ Ques/30min with negative marking)

I am from Computer Science background so all the questions are related to it. (Electronics section is also there for ECE guys)

- Questions from OS(Memory, IPC, Scheduling Algorithms)
- Questions from DBMS(I think only 1 or 2 question)
- Again some questions from C/C++
- 2-3 Networks Question

According to me to clear this written round, you should know which question to attempt and which one to leave due to negative marking. Please manage your time accordingly. If you are able to attempt 12-15 question correctly out of 20 in each section then they will select you for next round. Again, please avoid negative marking as much as you can but it does not mean you should leave too many questions.

So manage accordingly \xf0\x9f\x99\x82

Round 2:

They called me to Hyderabad location for next rounds. No need to worry about travel expenses. Qualcomm is going to arrange everything for you from Flight Tickets to Cab booking.

So I went there. In this round, 2 interviewers were taking my interview. They asked me to introduce myself. After that, they quickly jump to questions

1. [Detect loop in a linked list.](#)
2. Implement Stack using a linked list.
3. While passing 2d array, why it is necessary to pass number of columns?
<https://stackoverflow.com/questions/12813494/why-do-we-need-to-specify-the-column-size-when-passing-a-2d-array-as-a-parameter>
4. Implement your own memcpy ? What is the problem with memcpy. ?
<https://www.geeksforgeeks.org/write-memcpy/>
5. There is a string consist of integer and characters. From that string, you have to tell that string is valid or not based on some rules which they gave me there.
6. One Question from Bit manipulation.\xc2\xa0[Count number of bits to be flipped to convert A to B](#)
7. Some question from Operating System like paging, segmentation, Deadlock? What is wait and signal in the OS?
8. Structure padding. Why we use it ? Explain with example.
<https://www.geeksforgeeks.org/structure-member-alignment-padding-and-data-packing/>

After this, I asked them 2-3 questions. Then they told me to wait.

Round 3:

Again the interviewer asked me to introduce.

1. How the C program compile. Explain all the phases ? <https://www.geeksforgeeks.org/compiling-a-c-program-behind-the-scenes/>
2. Structure and Union. Difference between these two and where we used them.
<https://www.geeksforgeeks.org/difference-structure-union-c/>
3. He asked me what different type of data structures you know. I told him.
4. [Level order traversal of tree.](#)
5. Write a program to [delete a node in the tree](#)(make sure to cover all the corner cases).
6. What happened when you enter a URL on browser. Explain all in detail.\xc2\xa0
<https://medium.com/@maneesha.wijesinghe1/what-happens-when-you-type-an-url-in-the-browser-and-press-enter-bb0aa2449c1a>
7. What is little Endian and Big Endian. How to check for it ? <https://www.geeksforgeeks.org/little-and-big-endian-mystery/>
8. Difference between repeater, bridge, hub and router ? <https://www.geeksforgeeks.org/network->

[devices-hub-repeater-bridge-switch-router-gateways/](#)

Then he asked me do you want to ask anything. I asked him about his role in the company.

Round 4: Hiring Manager Round

In the starting, he asked me 7-8 HR type questions like Why you want to switch so early? Are you OK with Hyderabad location? When you can join us? etc. What are your projects in IIT Roorkee(I did my M.tech in Computer Science from there)?

After this question, he jumped to technical questions. He started with some easy questions.

1. Explain all the layers of the OSI Model.
2. Different process stages.
3. Write a code where deadlock is possible. How will you remove it?
4. How process communicate with each other. ?
5. Write a program to find the length of a string.
6. Write a program to find if IP Address is valid or not. To be honest I was not expecting this question because Qualcomm generally does not ask questions with this much difficulty. But after struggling around 20 minutes, I was able to solve it [Program to validate an IP address](#)
7. Difference between process and thread.
8. What is there in Process Control Block.
9. Swap nibble in a byte. I solved the question with the brute force approach but then he told me to optimize it. He also gave me some hints. <https://www.geeksforgeeks.org/swap-two-nibbles-byte/>

In the last, he gave me 2 coding questions. I solved them as they are easy. Then he told me that now you can leave, HR will contact you soon.

After 3 days I received a mail from Qualcomm that I got selected.

For any other help, feel free to ping me on my LinkedIn profile. <https://www.linkedin.com/in/goutam-kumar-a80a98125/>

Special thanx to GeeksforGeeks for providing such a good platform.

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Qualcomm Interview Experience

- Difficulty Level : \n[Easy](#)
- Last Updated : \n31 Aug, 2018

Round 1: Online Exam

This exam consists of 3 sections each containing 20 questions which have to solve in 30 min.

After 30 min section is switched automatically. The marking scheme is +1 for the correct answer and -0.25 for the wrong answer.

Section1: Quantitative Aptitude, Logical Reasoning, Data Interpretation & Verbal

You can prepare from <https://www.geeksforgeeks.org/placements-gq/>

The score in this test matters a lot. Try to answer only questions you know.

Round 2: Technical PI

I had two technical rounds

Tech PI 1:

Basic introduction.

A clear understanding of projects in your CV. Better to have at least one hardware oriented project.

This lasted for only 10 min.

Tech PI 2:

Deep questions on different modules of projects which you have mentioned in CV.

How did you test and handle the exception cases?

White Box testing. \xc2\xa0<https://www.geeksforgeeks.org/software-engineering-white-box-testing/>

SDLC and its phases. <https://www.geeksforgeeks.org/software-engineering/#sdlc>

What is the difference between call by value and call by reference? Which is better and why?

<https://www.geeksforgeeks.org/parameter-passing-techniques-in-c-cpp/>

\xc2\xa0

This round was around 20 min

\xc2\xa0

Round 3: HR Round

A good introduction lasting a minute is very much important.

Why Qualcomm? I suggest you go through the company Wikipedia and Twitter pages to know about the company and use it in your answers. Recent technologies, statistics etc are very good for this

purpose.

Hobbies. Write the hobbies and interests which you are actually doing. These HRs are well trained to find out the truth. Know the maximum of your hobbies.

This round was for 10 min.

My process lasted only 2 hours.

Finally i got selected

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Qualcomm Campus Recruitment Interview Experience

- Last Updated : 05 Dec, 2019

Qualcomm conducted following rounds:

1. Online test conducted by hire pro. You can prepare from prepinsta and geeksforgeeks. In aptitude section they also ask logical aptitude too apart from quant. Keep your C basics like pointer, union, struct etc. strong.

2. Round 1 interview: First I was asked to introduce myself and tell about my project. Then most of the questions were about C, some from OS & and one from linked list. Following questions:

*toggle even bits of a number

*what is race condition?

*what will happen if I call free(NULL)? Any error?

*[how to detect loop in linked list?](#)

*what is deadlock?

*a function is passed a void pointer like myfunc(void *p). Determine memory address pointed by p is on stack or heap.

*What happens if I don't free memory and assign some other address to an existing pointer variable pointing to some memory on heap?

*Difference b/w semaphore and mutex.

*about volatile keyword in C.

*about function pointers

3. Round 2 interview: Entire discussion was on projects and few puzzles you will find on geeksforgeeks like ant triangle etc.

4. HR Round Relocation, why qualcomm, etc. HR like questions.

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Qualcomm Interview Experience | Set 20 (On Campus IITD)

- Difficulty Level : [Hard](#)
- Last Updated : 24 Sep, 2021

Qualcomm process contains 4 or 5 rounds

1. Aptitude+Programming mcqs+Technical mcqs
2. Technical Interview I
3. Technical Interview II
4. Technical Interview III(may or may not be)
5. HR interview

Round I

1. Aptitude Section: (30 min 20 questions / Negative marking)

- Work and wages -2 question
- 1 seating arrangement puzzle 4question
- 1 data interpretation 4 question
- Speed, time distance 2 question
- ratio and proportion 3 question
- other 5 are coding decoding, series etc type questions.

Note Questions are moderate, but time is very less. Be quick in this section!

2. Programming and Technical: (30 min 20 questions, 30 min 20 questions / Negative marking)

- Pointers in c++ Focus on precedence and associativity of operators(60%)
- Union and structure in c++
- worst fit, best fit which one is better?
- pseudo code for queue using two stacks
- NOP operation takes memory stalls in code segment?
- sorting algorithms complexity?
- bitwise operator questions in c++
- super keyword in java points in mcq forms
- static keyword in c++
- const pointers in c
- LRU AND FCFS page faults algorithms numericals in os
- heapify, heap sort complexity?

Note Programming mcqs are easy, but technical mcqs are not so easy. Questions are based on fundamentals of programming(c/c++). Focus on basics of C/C++, Operating system, COA, DS and algorithms. Again Be quick in this section also.

Round II

This round was very interesting. He asked me to Introduce Myself !

After that he jumped on the technical section directly.

1. He asked me about my Language used in the projects \xe2\x80\x93 C/C++/Java/Python. And then a Programming question \xe2\x80\x93 [Sort an array of 0s, 1s and 2s](#)
2. How to pass an array with the help of pointers. While passing 2d array, why it is necessary to pass number of columns?
3. Size of structure and union (structure padding) \xe2\x80\x93 <https://www.geeksforgeeks.org/structure-member-alignment-padding-and-data-packing/>
4. You have to include a file in your program which will contain a generic code for linked list operations using pointers in C? \xe2\x80\x93 <https://www.geeksforgeeks.org/generic-linked-list-in-c-2/>
5. Write a code for memcpy function in C, he wanted a generic code implementation, hence focused on void pointers and typecasting of pointers. <https://www.geeksforgeeks.org/write-memcpy/>
6. What is Operating system? Tell me about memory management \xe2\x80\x93 Paging, Segmentation? \xe2\x80\x93 Was very happy after this discussion !
7. Write a program to reverse bits of a number, You can not use mod % operator \xe2\x80\x93 [Write an Efficient C Program to Reverse Bits of a Number](#)
8. Tell me about your projects, he was focusing on my Information retrieval and Foundation of parallel programming projects a lot in the end.
9. Want to ask Ask any question? \xe2\x80\x93 I asked him about his area of interest and in which area he is working now a days in Qualcomm?

Round \xe2\x80\x93 III \xc2\xa0

This round was very boring, because Interviewer was not giving any outputs whether I was correct or not. He was asking questions in a sequence. \xc2\xa0

1. Asked me about content of the questions of Round \xe2\x80\x93 II. So that he can ask some different questions in this round.
2. You have 13 group of cards, each group has 4 cards of similar type and has a same number on them, which can be from (1, 2, 3 \xe2\x80\x93 13). What is probability of choosing 3 cards so that number 10 should be on 3rd card?
3. Tell me, how to predict a number if it is prime or not, Derive time complexity and space complexity? He asked me various approaches. I knew only 2 methods in $O(\log n)$ time complexity \xe2\x80\x93 <https://www.geeksforgeeks.org/prime-numbers/>
4. What is the advantage of using function pointers for calling functions instead of calling function directly \xe2\x80\x93 I told him about lambda function in c++11 \xe2\x80\x93 <https://www.geeksforgeeks.org/function-pointer-in-c/>
5. Again he asked a math question. You have a grid of $m \times n$ size, what are the ways to go from one point to another point in the grid given that i can not go from two restricted points? \xe2\x80\x93 Famous gate puzzle
6. Suddenly he said Thanks! Wait outside.

I answered each and every question. I was very nervous after this round as the interviewer was not responding anything, he was asking questions only. Then i waited for Hr round for 2-3 hours. \xc2\xa0

Round \xe2\x80\x93 IV \xc2\xa0

HR round, Again he asked the same repeated and boring questions. Please do not prepare for these questions! According to the situation, predict the answer, what the HR wants. \xc2\xa0

- Introduce yourself.
- Why qualcomm?
- What work you will do in qualcomm?
- Qualcomm Hyderabad or Bangalore or Noida?

- Any questions?

Finally *result came at 11:00pm and I was in the selected list of students.*

Note

1. ***Be fast in the online test.***
2. ***Focus on your fundamentals of computer science (Prepare your gate or Btech subjects basics).***
3. ***Prepare for aptitude also because every section has its own cutoff.***
4. ***Prepare for coding questions Interviewbit and geeksforgeeks are good platforms.***

Contact (If more queries) guliaataptitude@gmail.com

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Qualcomm Interview Experience | Set 19 (On-Campus)

- Difficulty Level : [Easy](#)
- Last Updated : 19 Jul, 2019

Round 1: Written Round

- Total Number of Questions : 60 Questions
- Total Time : 90 mins
- **Quantitative Aptitude Questions**
 - Questions : 20 Ques
 - Time : 30 mins
- **Programming MCQ Questions**
 - Questions : 20 Ques
 - Time : 30 mins
- **Technical Section Questions(Computer Science/Electronics)**
 - Questions : 20 Questions
 - Time : 30 mins

Questions in this round were very hard and the platform used by them was hirepro. However for me questions were repeated from PrepInsta Website's Qualcomm Dashboard but unfortunately, I didn't prepare well. So I was not selected to the next round. But I do remember some questions that my friends had gotten asked in the exam will share them below.

Round 2:

- Time complexity comparison of different search algorithms
- Explain project in detail.
- [Implementation of Queues using linked list.](#)
- Difference between single linked list and double linked list (in-depth analysis).

Round 3:

It was a basic HR round.

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Qualcomm Interview Experience | Set 18 (On-Campus Internship)

- Last Updated :19 Jul, 2019

Qualcomm visited our campus to hire software interns. The process had three rounds.

Round 1: Logical reasoning and Technical test

In this round, there were 60 questions that had to be completed in 60 minutes. Out of the 30 questions, 20 were logical reasoning aptitude questions and 10 were technical questions (code output, debugging, DBMS, OS, networking etc.). Around 40 students were shortlisted for the next round.

Round 2: Coding test

This round had 2 coding questions which had to be done in 3 hours. Again, this test was on their own platform. Also, the interesting part of this test was, browsing the internet to solve questions was allowed. The questions were practical problems rather than standard coding questions.

The first question was based on string formatting. It was for 50 points.

The second question was to parse given lines of code that are written in a new language whose syntax and rules were given in the question and processing the code to generate the corresponding output. It was for 150 points.

They shortlisted 6 students for the next round.

Round 3: F2F Interview

This round took place in their Noida office.

1. They asked questions from my resume and on previous projects and technologies that I had used.
2. They analyzed the results of the coding round and told me all the test cases and asked me to make corrections in my code for incorrect test cases.
3. They asked to write a simple C++ program to evaluate infix arithmetic expressions. (Hint: Ask for different test cases, convert expression to postfix and then evaluate)
4. Lastly, they asked to [write a program to add two numbers that are represented as a linked list.](#)

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Qualcomm Interview Experience | Set 17 (On-Campus)

- Difficulty Level :[Basic](#)
- Last Updated :19 Jul, 2019

The test based on **HirePro Examination**. They had outsourced the first round to **HirePro** and had asked them for results on the basis of which students were called for the next rounds. The test was difficult especially Quants and Computer Science section, I had gotten advice from my seniors to study from PrepInsta. Some questions were repeated from there thus, I was able to solve the Question Paper in time but still, it was lengthy and most of us failed to solve all the questions in time correctly.

Round 1:

In written exam with three section,

- Quantitative and reasoning
- Computer science
- Programming MCQ

Time 25 min

Number of Questions 20 Questions

Round 2: Technical interview

- What is watchdog timer
- Determine output of given program.(programs are basically checking if-else pairing in nested form, storage type.. register, about const keyword, about pointer and its initialization)
- Questions on Time and Space Complexity
- [Binary Search](#) logic and its code
- Any other search algorithms he asked and I said Linear search, etc
- Time complexity comparison of different search algorithms
- Explain project in detail.
- [Implementation of Queues using linked list](#).
- Difference between single linked list and double linked list (in-depth analysis).

Round 3 / HR:

Most of the questions in HR round were basic and thus, I don't think you need anything special just speak confident and good English.

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Qualcomm Interview Embedded Software | Set 16 (LTE/5G (US))

- Difficulty Level :[Basic](#)
- Last Updated :11 Nov, 2017

Round 1: Phone Interview Lasted for 45 minutes(Originally scheduled for 30 minutes).

Questions involved about resume and projects.

Understanding of data structures.

1. Coding : Finding duplicate entries in an array in the most optimal way possible.
2. Understanding of Stack.
3. Hash maps
4. Time and Space complexity.

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Qualcomm Interview Experience | Set 15 (On-Campus)

- Difficulty Level : [Medium](#)
- Last Updated : 19 Jul, 2019

Round 1: Written exam with three sections, quantitative and reasoning, computer science and the last one is programming MCQ, each section with 25 min and 20 Questions.

Technical interview 1: (about 1 -1.5 hour)

1. Tell me about yourself
2. Explain your BTech project.
3. I had working experience so he asked me the type of work, I did there.
4. [Detect cycle in single linked list and method to remove this](#)
5. [Given a n-1 number from 1 to 100 and one number is missing and find that missing number.](#)
6. Same as previous but here we have only n-2 number and hence find those two missing number.
7. What is the real-time OS?
8. What is the watchdog timer?
9. Determine the output of the given program. (programs are basically checking if-else pairing in nested form, storage type.. register, about const keyword, about pointer and its initialization)
10. What are different CPU scheduling you know, which are most suitable for real-time OS?
11. Puzzle: in t20 match how much a batsman can score maximum runs.
- 12: What TLB?, Is it cache or register, where is it located on the circuit board, how it helps in performance.
13. what are various ways for interprocess communication.
14. Why you left the previous organization?
15. Do you have any question?

Technical round 2: (about half hour):

1. Tell me about your self
2. explain B Tech project
3. explain previous organization work/project
4. given a string find [longest palindromic substring](#).

HR Round: (about 15 min):

1. Tell me about yourself
2. Your family background
3. What you learned from the last organization
4. Why you left the previous organization
5. What you learned in Mtech
6. How much it work experience useful in doing MTech
8. Will you be able to relocate
9. What is your weakness
- 10 Do you have any questions

I got selected in the company in the end.

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Qualcomm Interview Experience | Set 14 (On-Campus)

- Difficulty Level : [Easy](#)
- Last Updated : 07 Jan, 2020

Round I

This round was 60 multiple choice questions(20-general aptitude, 20-technical, 20-again technical(based on either communication/electronics/computer science)). Technical was a bit easy and aptitude took time to solve.

Round II(F2F-technical)

They shortlisted around 60 students for the second round. Second round was technical F2F. I was lucky to have a panel member from ECE and he didn't know much about Data Structures(I'm from IT :-P). So, he asked some basic datastructure questions:

- Name any some of the data structures you know I told linked lists, stacks, queues and trees, etc
- He started with Linked list and asked code for reversal of linked list
- Deleting a particular node in a Circular Linked List
- [Binary Search](#) logic and its code
- Any other search algorithms he asked and I said Linear search, etc
- Time complexity comparison of different search algorithms
- Then, he moved onto Trees
- [What is balancing of a tree?How to do it?](#)
- What is AVL tree?(He asked to explain and made me to balance an AVL tree as well as write a code for it)
- Types of trees.

That's it, the first round was a piece of cake and I immediately got into the third round.

Round III(F2F-technical)

This time I wasn't so lucky and I bumped into a CSE background guy : (. Though, he asked some tricky questions, I was able to answer most of them.

Operating Systems:

- What are the different types of OS.
- Do you know RTOS?
- What are its types?
- How do you implement RTOS?
- How to achieve zero error rate in Hard RTOS?
- What is semaphore?
- What is a monitor?
- Difference between them

C/C++:

- First question was how do you rate your knowledge in C/C++?- I told 8-9 out of 10. So, he started asking.
- Difference between Macro and Inline?

- What is the new thing you learned about C/C++? (I told him how to calculate sizeof without using sizeof() operator)
- What's the silliest mistake you've done and after recognising the mistake, you thought as ohh !!! this simple mistake I made??
- Structure Padding question:

```
struct temp{int a ;char b;int c;}
```

 What is the sizeof this structure?**Answer:**12(not 9 because of structure padding)

Round IV:(HR)

This round was mostly chatting with the HR like what's your passion?, will your life goals be achieved if you join Qualcomm?, Why Qualcomm?, What's your location preference?, What domain would you like to work with Qualcomm?, etc .

Qualcomm interview was a cakewalk for me, only con is I waited for a long time for each of the rounds, but that pain brings a pleasure at the end, I got selected

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Please write comments if you find anything incorrect, or you want to share more information about the topic discussed above.

[All Practice Problems for Qualcomm](#) !

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Qualcomm Interview Experience | Set 13 (On-Campus)

- Difficulty Level : \n[Medium](#)
- Last Updated : \n20 Nov, 2019

Qualcomm visited our campus for both Full time hiring and Internship for both hardware as well as software profiles.

Round 1:

1st Round was an online MCQ test conducted by HirePro, it consisted of 3 sections, each containing 20 questions and total duration was 90 mins.

Section 1(30 mins):

Basic Aptitude questions

Section 2(30 mins):

Basic Programming questions.

Section 3(30 mins):

It was based on your preference (Computer Science/Electronics). I chose Computer Science and there were questions from DS, OS, Architecture and Networking.

Around 400 people sat for 1st round, out of which 59 were shortlisted.

Round 2:

It was 1st technical round. Maximum questions were asked from my projects(especially from the project which I did in my Summer Internship after 6th sem). My project was on Machine Learning, so basic questions from theory of Machine Learning were asked. The interviewer was very friendly and wherever I got stuck, he showed me the right path.

After this round, I was shortlisted for 3rd round.

Round 3:

It was 2nd Technical round. Questions were mainly asked from DS and OS. The interviewer was very friendly and guided me a lot whenever I got stuck.

Questions Asked:

1. [Heapsort](#) and [Quicksort](#) along with their analysis(time complexities)
2. [Delete nth end from end of linked list](#)(I told him the best approach and he was very impressed).
3. There will be a search box , where input is a person's surname and finally search results will display all the details of that person(full name, roll no, stream etc). I was asked to implement it in C++(only approach was required). I gave him a hashmap approach and he was satisfied.
4. Segmentation, Paging, Demand Paging and Swapping.

I would suggest all of you to please read the operating Systems section in GeeksforGeeks.

[Operating Systems](#)

The things here are given in very concise and accurate way, and it helped me a lot while preparing.

Round 4(HR):

Basic Questions were asked like Tell about Yourself, Why Qualcomm?, Where do you see yourself in 5 years? etc..

I was very confident and energetic in all the rounds and answered almost all questions correctly.

Finally got Hired!!! \xf0\x9f\x98\x80

Here\xe2\x80\x99s an advice, please be confident enough and don\xe2\x80\x99t stumble. Answer every questions loudly, clearly and if possible give examples\xe2\x80\xa6

I would like to thank GeeksforGeeks for providing such an awesome platform for interview preparation and helping me a lot. Thank You, GeeksForGeeks!!!

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[All Practice Problems for Qualcomm !](#)

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Qualcomm Interview Experience | Set 12 (On-Campus)

- Difficulty Level : [Medium](#)
- Last Updated : 19 Jul, 2019

Qualcomm visited for both Full time and Internship profiles for both hardware as well as software profiles.

Round 1

1st Round was an online MCQ test conducted by HirePro, it consisted of 60 questions. First 20 questions were basic aptitude questions followed by 20 questions on basic programming. The last 20 questions were based on your preference (Computer Science/Electronics). If computer science was chosen, certain moderate to advanced questions were asked on pointers, OS, trees, etc. Around 500 people sat for the test out of which 86 were shortlisted for interviews.

Round 2

This was a technical interview. The topics discussed depended on the type of profile the candidate had chosen (Software/Hardware/Both). As I had chosen Software profile. the questions were geared towards computer science concepts.

Questions asked:

1. Explain project in detail.
2. [Implementation of Queues using linked list.](#)
3. Difference between single linked list and double linked list (in-depth analysis).
4. What is stackoverflow and when does it occur. How to handle it.
5. Applications of stacks.
6. What is the most efficient process scheduling algorithm and why.
7. Given 4 points, arrange them in such a way so that all 4 points are equidistant from each other.

The interview lasted for about 30-45 min.

Round 3

This was also a technical interview.

Questions asked:

1. Draw the process state diagram.
2. [Given a binary tree, check whether it is a binary search tree](#) (cover all corner cases).
3. Data Analysis based question (Given a use case, come up with a solution as to how you would draw insights from the data). I was asked this question as my area of interest lied in machine learning and data science (Very specific to the area of interest of the candidate). The problem required the knowledge of the functioning of mobile devices, machine learning and highly scalable storage data structures.

The interview lasted for about 30 min.

Round 4

This was an HR interview. Questions were asked to check whether the candidate had clarity of mind and wasn't fickle minded. Usual HR questions related to the best project so far, location preferences, etc were asked.

The entire process took place for an entire day starting from 10.00 a.m. to 10.00 p.m.

The results were declared at around 10 p.m. 14 offers were made for both hardware and software combined.

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Qualcomm Interview Experience | Set 11 (On-Campus)

- Difficulty Level : \n[Easy](#)
- Last Updated : \n19 Jul, 2019

Round 1:

This was the round to filter 86 students out of 260 students, who appeared for the Online Quants test (organised by HirePro). It was open for CSE, ECE, ISE, TE and EEE departments.

Test had 50 questions, for which 1hr was given, it consisted of three parts

1. Quantitative aptitude
2. C++/C/Java
3. Computer science/communication/electronics

C/C++/Java questions were given if your main branch is CS.

Each round consisted of 20 questions of 1 mark each to be finished in 30 minutes. There was a negative marking of .25 per question.

First section consisted were decent aptitude questions along with few quants, word coding logical reasoning and verbal reasoning questions.

Second section completely consisted of C++ and C output based questions. Most of them were time consuming bit manipulation and Pointer questions (almost 70 percent).

In Third section we had to choose the paper according to our profile, for it was CS. Very few OS questions but most questions were from C, OOPS and a few from DS.

Round2:

I was shortlisted for the interview process, after the results from the first round. There were 86 students form various departments which had 22 from CSE. This was a **complete Technical Round**.

The interviewer asked me:

1. Tell me about yourself? (After letting him know my hobbies which was playing guitar, asked me about Imagine Dragons!!!!)
2. [Given Array find the unique elements in an array](#)
3. Why is for loop better than while loop
4. Why is it not efficient/disadvantageous to use arrays instead Linked Lists
5. Analytical Question: If there are 3 ants on the edges of a triangle. Find the prob that they will meet each other.
6. Asked me about my projects
7. Do you have any questions for me?

This went on for about 20 minutes. It went well and remember through out the round have a smile on your face, and try to give an answer even if you don't know any. **Always try to come up with a solution.**

Round3:

From 80 students around 30 made it to the second round. This was also a **technical round** and it was one of our Alumni who was the interviewer. So Peace.

He asked me

1. All about my projects
2. About my Hackathon
3. What is thrashing (<https://stackoverflow.com/questions/19031902/what-is-thrashing-why-does-it-occur>)
4. If there were many smart phones ahead of you (Qualcomm!), which one would you buy, if look and aesthetics weren't the problem. (Tell about the processor, the speed of certain tasks like Camera app, Geekbench scores.)
5. Do you have any questions for me? (Asked about Work Life and Fields we freshers will be working in)

That completed my 30 min second round, and the person seemed were interested and happy in my answers and I was called in for the last HR round.

For my friends they asked q like

1. Difference btw [DFS](#), [BFS](#) write a code
2. Many OS questions like what is Segmentation, give some memory management techniques
3. Write a code which can replace the strlen() function.
4. [Find a given sub-array within an array](#)
5. [Many Data Structures questions](#)

This completed my Second round was happy to be called for HR. Same rules apply here **Always try to come up with a solution**, never give up and try to give an answer even if you don't know any.

Round 4:

This was a typical HR round but it was tricky to answer some questions. The person was a good HR Manager. There were only 18 people who made it till here and gave the HR round out of 260.

He asked me questions like

1. Tell me about yourself?
2. What roles do you want to work on?
3. Your location preference (Bangalore/ Hyderabad)?

4. Your passion and skills.. Your strengths and weaknesses..
5. Have you interned anywhere before?
6. Is this your first Interview in the CRD(Campus Recruitment drive)? (Mine was a No.. so asked me why didn't you make in to that company).
7. Tell me about Qualcomm
8. How informative was the Presentation given earlier?

Rest of the questions were all based on the CV. He was asking question for each word present in CV. Many stress testing questions and background questions. He asked me about which of my written test section went not so good and why. He also asked me about relocation. He then asked me to ask any question if I have. I asked few. My HR round lasted for 20 min.

Result was announced at night 11pm and 14 of us got full time offer from Qualcomm. ATB!

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Related Practice Problems

[Finding the numbers](#)

[Array Subset of another array](#)

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Qualcomm Interview Experience | Set 10 (On-Campus)

- Difficulty Level : [Easy](#)
- Last Updated : 19 Jul, 2019

Qualcomm came for full time and internship (not both together) in our campus. Test consisted of written test followed with two technical and one HR round.

Written test was divided into three parts:

1. Quantitative aptitude
2. C
3. Computer science/communication/electronics

Each round consisted of 20 questions of 1 mark each to be finished in 30 minutes. There was a negative marking of .25 per question.

First section consisted of not so tough aptitude questions along with few quant, word coding and logical reasoning questions.

Second section completely consisted of C output based questions. Most of them were time consuming bit manipulation questions (almost 70 percent).

In Third section we had to choose the paper according to our profile, for me which was CS. Very few OS questions compared to other written tests which I heard Qualcomm organized in past years. Most questions were from C, OOPS , few from DS.

Result was announced after one day, after the pre-placement talk by the company. Out of 153, 73 were selected for face to face interviews.

In my first technical round, he asked me:

To give my introduction and explain my projects.

1. [Find loop in a linked list](#) and [find the length of that loop](#).
2. Mutex vs. Semaphore and their implementation
3. Virtual memory and paging
4. Stack vs. Heap and their content
5. Thrashing and how can we avoid it.
6. Memory mapping
7. Threading concept and how stack behave in multi-threading environment and few pThread concepts
8. Page fault and steps followed to handle it
9. Deadlock and its avoidance

10. One puzzle: If we have three boxes each with two balls which can be either black or white are named wrong. Their name is such that it signifies the first letter of each ball's color, which the box contained. For example a box containing a white and a black ball should have name: bb. But unfortunately all boxes are named wrongly. Find the minimum number of ball to be extracted to find out correct name of each box. Condition: each ball that is taken out should be replaced to the same box.

Then he asked me ask any questions if I had. I asked three.

My interview was for 30 minutes. After first round 43 candidates were selected for next technical round. The questions he asked me in this round were:

1. Inline function, why we should use them, if they are so good why not make every function inline
2. How normal function call is implemented (OS perspective)
3. Steps that is followed when an Interrupt occurs (OS perspective)
4. Given few cases and asked how interrupt will affect their execution.
5. Given a code without Mutex and ask to give an execution flow of thread that will give wrong result
4. Can't we share data without mutex. Give examples of any scenario you support
6. Compiler stages with brief explanation about each
7. Make file and multiple file program compilation and execution.
8. How compiler does intermediate code optimization and few examples of them.
9. Static linking and dynamic linking, how they are implemented and examples of both
10. Extern variable and function

My this round lasted for 35 minutes. After first round 32 candidates were selected for HR round. The question he asked me in this round were:

All based on the CV. He was asking question for each word present in CV. Many stress testing questions and background questions. He asked me about which of my written test section went not so good and why. He also asked me about relocation. He then asked me to ask any question if I have. I asked few. My HR round lasted for 15 minutes.

Result was announced in evening and 18 of us got full time offer and 4 got internship offer from Qualcomm.

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Qualcomm Interview Experience | Set 9 (Experienced through LinkedIn Invite)

- Difficulty Level : \n[Easy](#)
- Last Updated : \n30 Sep, 2019

I have applied for Graphics Software Engineer position through LinkedIn. I was called for interview after 2 weeks of applying. Interview took place in Bangalore office.

Round 1 (60 minute):

1. Explain BE project (Satellite image processing)
2. [BFS](#) and [DFS](#) (Example and code)
3. [How to find loops in linked list?](#)
4. [Merge sort](#) and [Quick sort](#) (Code and timing complexity)
5. How pivot element in quick sort affects the timing complexity?
6. [Binary search](#)
7. Virtual function
8. Overloading vs Overriding
9. [Find the intersection of two linked list](#) (2 methods: brute force and $n \log n$ complexity one)

Round 2 (30 min):

1. Questions on internship experience (Computer Vision domain)
2. Multidimensional images
3. Masking operation
4. Edge detection
5. Face detection
6. General steps in image processing
7. Image segmentation techniques
8. How simulation model of any HW is designed?
9. How you compare outputs of HW model and equivalent SW model?

Round 3 (30 min):

1. malloc vs calloc
2. Write a python script to find an occurrence of a word in file
3. What are timing complexity notations?
4. Create and insert function in Binary search tree (BST)
5. Access specifiers with example
6. 1 year job experience (SAP BI). Steps in SAP BI?
7. Puzzle: With minimum number of moves change given shape into another shape (matchstick)
6. Puzzle: One man does the exact double amount of work than the previous day. It completed the total work in 15 days then how many days it require to completed 50% of work?

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Qualcomm Interview Experience | Set 8 (Experienced)

- Difficulty Level : [Hard](#)
- Last Updated : 19 Jul, 2019

It was really good experience at Qualcomm. I was interviewed for Associate Software Engineer and have an experience of an year, first by telephonic round and then F2F interview.

Round-1 Telephonic around: 70 minutes (Taken by 2 persons)

1. All they asked at first was about Projects done in my company and at college level.
2. Then main thing they ask was OS and its concepts:
 - a. Memory management.
 - b. CPU scheduling.
 - c. Deadlock and its real time examples.
 - d. Questions on how two processes can communicate in OS, give different ways.
3. Coding questions:
 - a. [Reverse a linked list.](#)
 - b. [Print left view of a binary tree.](#)
 - c. Implement your own memcopy.

After completion of this round they asked me if I can travel to Hyderabad for further rounds. At 7th January 2017 I gave F2F interview.

Round-2 F2F: 120 minutes

He started with simple intro then explained me the position for which interview was going on.

1. Then after he asked me about all of the projects on which I have worked till this time. He also asked different situations like how you use to fix the issues of memory overflow, crashes in your current company.
2. Questions on big and little endian:
 - a. Their notation and what are the different OS which one is big endian and which one is little endian.
 - b. You have one code now this code must work on both little and big endian in same way how will you do that: I gave solution of having different macros for different OS like for linux, windows it will work as little endian and another macro for SUN and motorola OS it will work as big endian.
 - c. Some more explanations on this topic only.
3. Find the word in given para :
This is my island of love and it is meant for kids of 10 years.
Now you have to find word `is` in this given para (word can come in other word) whose count is 4. Then implement the same logic, if you have to find `is` if it separate word.
They asked me the different solutions for this question using `strcmp` and your own logic.
I gave solutions via `hashMap` and normal word searching and `strcmp`.
4. He gave me 10 output questions based on pointers.
5. Again he asked me some basic questions on programming like one `x.h` file is included in another `y.cpp` file and `x.h` file is included in `z.h` file and `z.h` is included in `a.cpp` now asked me several questions like which file have which variable accessed and what is the order of print statements and etc questions.

Round-3 F2F: 80 minutes

In this round he asked me about questions asked in previous round.

1. Then he started with questions on OS

a. Process and thread difference.

b. How will you handle 2 thread working on same MAP. Then asked several questions on mutex and different types of locking systems.

c. Questions on Storage classes in C.

2. [Reverse the bits of a number.](#)

3. [Min distance between two given nodes of a Binary Tree](#)

In the above question he asked me about call stack of the program.

4. Use of stack and queue DS.

5. Difference between stack and heap memory. Asked me to explain by writing a simple program.

6. Questions on Function pointers and usage.

Round-4 F2F: 80 minutes

This round was more logical and was tough because in this round I was asked basic questions on pointers and how memory is accessed by different functions.

1. He asked me to explain Inline function. Then asked me which are the cases where inline would not work. He asked me internals of inline how it works and why this function works more faster than any other normal function. He asked me is there is any common thing between function pointer and inline function.

Afterwards he also explained some points in this topic to me.

2. He told me to write my own sizeof operator (<https://www.geeksforgeeks.org/implement-your-own-sizeof/>)

3. [Program to Detect loop in a circular linked list.](#)

4. He also asked the question : Reverse the bits of a number and count the number of set bits in the given number.

5. Many questions on static variable and static function.

Round-5 F2F: 20-30 minutes [Manager round, HR round]

1. He asked me about my previous company and projects done there.

2. Then explained about the position.

3. He asked me about my joining and all and all basic questions is work interesting or not.

4. Why Qualcomm? Relocation? salary expectation?

NOTE: One must be clear with pointers and memory management and DS questions. Basics of C is they ask a lot.

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Related Practice Problems

[Reverse a linked list](#)

[Left View of Binary Tree](#)

[Reverse Bits](#)

[Min distance between two given nodes of a Binary Tree](#)

[Detect Loop in linked list](#)

[Set Bits](#)

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Qualcomm Interview Experience | Set 7 (Off-Campus)

- Difficulty Level : \n[Hard](#)
- Last Updated : \n19 Jul, 2019

It was a very good experience to face interview at Qualcomm (Hyderabad-2016)

I have attended the interview for a position of Software Engineer and My experience and Questions are mentioned below.

Round-1 Telephonic around (40min to 1hr) Medium level.

- All about your CV
- Lots of questions on project and how it works actually
- OS concepts and real examples
- Deadlock situations (detection ,prevention)
- Sw watchdog timers
- OS schedulers and algos
- Error handling in the system , Core dumps ,etc
- Memory management concepts
- Mutex/critical section/semaphores
- Dsp processor, pipeline, and serial IC
- 3 Coding questions ([LinkedList](#), [stack](#) based, and [string](#) based).

Note: All round questions were asked deeply and need to tell him until he convinced with the answers. After 7 days I got a call to come down to Qcom office for next rounds. That day went from 10 to 4 clock break only for lunch.

Round 1 (2 person took from 10 to 12.30):

- Started with my resume, asked questions on my internship projects, main projects.
- Basics of [C programming](#).
- 5 coding questions ([bit wise](#), [Fibonacci](#), [LinkedList](#), [trees](#), and [pattern recognition](#))
- Then started with os concepts, scheduling algorithms, best data structure for real time scheduling.
Memory map of program, Storage classes and their mapping
- If we declare more number of variables than the registers available on the processor? Where they will be stored.
- IPC (signal, as I coded in this) how actually it does transfer of memory
- Set of C code snippets given to debug \xe2\x80\xa6 Identify problems in it and tell outputs
- Memory questions like Best fit, worst fit, average fit questions.
And further questions on that.. like why?

Round 2 (coding):

- Basic C questions and resume questions
- Write a program to Delete a node, given only a pointer to the node in a Circular linked list
- How to access data in the called functions after returning from it (point here is that, cannot access auto variables in functions after it is being called off)
- Write a program to return a stream of bytes from a function
- Lots of questions on Function pointers, how, usage, examples
- There was an IPL tournament, after every match you have to find the team with max points. You have to tell logic first then code it.

- LinkedList questions print every odd node first followed by even node without changing the LinkedList.

Round 3 (coding):

- Generic questions on project they are doing, how market values are there, what products are coming
- Count the occurrence of pattern 011110 in a large binary file.
- Questions on semaphores and mutex
- Questions on Call back functions
- Questions on function pointers
- [Program to Reverse a single linked list](#)
- [Program to Detect loop in a single linked list](#)
- Priorities of OS programs, process and thread differences
- How to handle the Generic functions, like Void pointers
- Similar coding question [level order spiral form](#).
- [Find the Next Permutation number](#).
- Retrieve the max 6 file in a folder whose size greater than 1MB.

Round 4:

- Write a own program for strstr function, optimal way
- Write a program to convert a given single Linked list to BST
- Questions on macros
 - How do you want to see yourself after a year, your intentions, aspirations
 - Big & Little endian definitions, representations, write it down, swap them, etc
- Lots of memory related questions
- Write a program to implement memcpy() on your own
- Need to evaluate many other conditions like overlap situations and etc.,
- Difference between library call and a system call
- Priority inversion in a RTOS and its solutions

Round 5 (Manager):

Qualcomm aspirations, culture and how you look to be next, feedback from us on the interview, Nothing much just a casual talk.

Round 5 (Hr):

Why Qualcomm? Relocation? salary expectation? just a casual talk.

Note: All rounds, you need to explain about your project clearly and they can ask some really good questions from your project. Be out and out clear with your projects and CV.

After this, I was actually into my Dream Company and Happy...!!

I suggest that always listen carefully to an interviewer, they'll definitely help if you have any doubt. Tell them your approach at least if you are not able to code it. Practice writing code on paper. For Qualcomm [Arrays](#), [Linked Lists](#), [Strings](#) and [Trees](#) are concepts which are very generally asked. Data structures & algorithms, OS should be proficiently practiced.

I would sincerely Thank **GeeksforGeeks** very helpful in my preparation and hope this would be useful for other aspirants.

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[All Practice Problems for Qualcomm !](#)

Related Practice Problems

[Subsequence matching](#)

[Implement strstr](#)

[Detect Loop in linked list](#)

[Reverse a linked list](#)

[Next Permutation](#)

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Qualcomm Interview Experience | Set 7 (On-Campus)

- Difficulty Level :[Hard](#)
- Last Updated :13 Jan, 2017

Round 1:

The first round was aptitude test along with basic c,c++,OS questions.

There was negative marking.

Overall it was easy.

Interview:

There were 2 technical interviews and 1 HR interview.

TI :

The interview started with \xe2\x80\x9cIntroduce yourself\xe2\x80\x9d followed by \xe2\x80\x9cwhat do you know about Qualcomm?\xe2\x80\x9d Then he gone through my resume and started asking questions on each coursework. Since I am from Visual Information Processing and Embedded Systems background they asked some basic questions like:

What are the different types of image transforms? Why they are required ? What is DCT ? Why DCT is used for compression? What is the need of compression ?

What are the different resolutions available for video files ? What is the need of video compression? Architecture of video encoder/decoder ?

What are the different storage classes available in C ? what is static variable ? Where you can use it ? What is the difference between pointer and reference ? Write a code to swap two numbers ? Write a code to find prime numbers in given range?

What is the difference between semaphore and mutex ? What is spinlock ? What is thread ? What is paging ? What is virtual memory ? Can we have an infinite amount of virtual memory ?

This followed by detailed discussion of each project and internship. Since my project was in Device to device communication and Qualcomm works in that area the rest of the interview was centered around my project only.

HR:

Why Qualcomm ? What is your M Tech project ?

What are your weaknesses ? Hobbies ? Any higher education plans ? Family background ?

Along with all skill sets they look for good CGPA as well.

Overall it was good experience.

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[All Practice Problems for Qualcomm !](#)

Related Practice Problems

[Find Prime numbers in a range](#)

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Qualcomm Interview Experience | Set 6 (On-Campus)

- Difficulty Level :[Basic](#)
- Last Updated :19 Jul, 2019

Panel 1

1. Tell me about yourself.
2. How many interviews did you attend?
3. Reasons for your rejection in the interviews?
4. How did you deal with those rejections?
5. [Swapping two numbers without the third variable.](#)
6. [Deleting a node in binary tree?](#)
7. Draw the block diagram of a computer and explain?
8. Process states in OS?

Panel 2/HR

1. Tell me about yourself?
2. Strengths and weaknesses.
3. About my project.
4. Which location I preferred?
5. About my family ?

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Qualcomm Interview Experience | Set 5(On-Campus for Software profile)

- Difficulty Level : [Medium](#)
- Last Updated : 19 Jul, 2019

Round 1:

The first round was hosted on hirepro.in and consisted of 3 sections:

Aptitude : 20 questions, 20 minutes

I managed to do only about 10. Time is the key here.

Programming 20 questions, 25 minutes

basic questions based on output, functional programming, bit manipulation

Did 18/20

Elective: (Electronics/Communication/Software)

I chose Software. 20 questions, 30 minutes based on OS, networking and OOP concepts.

Did 16/20.

The questions had a negative marking of 0.25.

9 students were shortlisted out of 200 for the next round.

Round 2: Technical Interview

Interviewer began by asking me "What do you know about Qualcomm" and then moved to on some general questions like:

"Difference between CDMA and GSM technologies"

"Why CDMA was phased out"

"What is 3G LTE"

"How IoT can impact the communications industry."

(They expect you to know about their company thoroughly.)

This was followed by a thorough scan of my resume. Each and every project and internship was discussed in detail. For my project concerning Machine Learning, I was asked how about partitioning of dataset, choice of performance metric, RandomisedSearch versus GridSearch.

Even the accomplishments on my resume were scrutinised. How I approached bug finding on site, difference between self XSS and reflected XSS, how do you suspect HPP.

So, basically if there is something on your resume, you should be aware of it in and out.

After this, he came on to coding problems.

[Flatten a tree into a linked list](#)

Some conceptual questions on pointers such as differences between `int const *ptr` and `int * const ptr`

The interview concluded with which team would you like to join at Qualcomm.

Overall, it was a nice and friendly experience.

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Qualcomm Interview Experience | Set 5(For Experienced)

- Difficulty Level : \nMedium
- Last Updated : \n30 May, 2018

I recently got a call from Qualcomm Hyderabad for Engineer position. I am from CS background and had 1 year experience.

There are #3 Tech Rounds and #1 Hr round.

Round 1:

1. Discussion about my last company, what they do and what is my role.
2. Interviewer started with my resume and asked about my projects. One of the project is related to C so he asked me to code a small module in that.
3. Memory layout of the C program, Heap & stack allocation. Malloc & calloc differences. storage classes in C.
4. Fibonnaci with recursion and its time complexity derivation.
5. Operating system synchronization mechanism, mutex vs semaphores, monitors.

Round 2:

1. Bit manipulation questions, Little and Big endian conversions.
2. Questions on compiler design, they want me to tell the steps and what happens in each step inshort like preprocessor, compiler, assembler, linker, loader etc. In which stage error will be thrown and how it throw the error.
3. Design a system which accepts a number divisible by 5. Hint finite automata state daigram for mod 5
4. Many questions on static variable and static function and difference between static vs global vs extern.
5. Reading a paragraph from a file and print the palindromes.

Round 3:

1. Discussion about my last company, what they do, what is my role, why I want to change.
2. Discussion about my projects. And the toughest module among all the projects I have done, why it is tough, what are the different approaches I tried.
3. write a program to find the number in a sorted array. constraints: you don't know the size of the array and you should try without finding the array size.
(Hint: Use exceptions).

I have done using array out of bound exception and later optimized using binary search.

4. Oops concepts, Static and dynamic polymorphism, Vtable, Vptr.
5. Questions on Inheritance, upcasting and downcasting.
6. Cache mechanism in computer architecture, L1 and L2.

Round 4: (HR)

1. why I want to change the company?
2. why I want to join Qualcomm?
3. He explained about the work culture and about qualcomm.
4. What are my strengths and weakness.

HR round is really cool, we had this round by having coffee in Cafeteria.

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Qualcomm Interview Experience | Set 4 (Intern + Full Time Employee)

- Difficulty Level : [Basic](#)
- Last Updated : 28 Jun, 2021

Round 1

- 60 [aptitude](#) questions I attempted around 48 (since negative marks were there i didn't attend those for which i had no idea).and got through this round.

Round 2 (Technical)

- Introduction about myself, educational background, project works, etc.
 - Project in and out; I was explaining and while explaining if the interviewer had some doubt or clarification; he asked and i answered; and so it was more of a conversation. Later he asked me few [data structure](#) questions.
 - He asked me to write a program to [reverse a linked list](#). Before i started writing it; he asked me if i knew it, i told yes; so he asked me to explain it without writing it. I explained him with my hands visually and very clearly(guess i impressed him atleast a little with this)
 - Next, he asked me to write a working program for all operations in a [stack](#) and also asked, What is a stack, its use, etc? (gave a simple definition, its applications and the principle on which it works). I did this all pretty well.
- Again as usual, when given the chance to ask questions; asked him lots of questions and made sure that i stand out from others.

The interview duration was approx 1.5 hours if am right, which was the longest comparing to others in the same panel. Later was through to HR Round directly after this round.

HR Round

- It was again with lots of simple questions and what i would do in various scenarios; and was again given a chance to ask questions; i made sure i make full use of the opportunity and asked around 5-7 questions. (PROPER QUESTIONS about the company). And i had completed a course in ENGLISH in coursera, and i also was school first in English in CLASS XII; so by seeing these two the HR asked me why i did that course? (considering my english wasn't very bad maybe it could be better on the vocabulary part, but who cares?)
I told her that i did that course because i wanted to improve my English speaking and writing skills in a professional way; and also told that around 200 students scored the same mark as me in English in CLASS XII, though it was the first mark.(She laughed and told Okay)
- For every answer i gave some clarity to it and when i told something negative about myself or something i backed it up by giving some valid reason for the same.
For ex: My weakness was I forget things; I told her i'll overcome this by making use of reminders, alarms, and by taking notes as and when things are told.so that i don't forget things easily.

This time I was lucky enough to have got placed in QUALCOMM with FTE + INTERNSHIP OFFER.

\xc2\xa0

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Qualcomm Interview Experience | Set 3 (Bluetooth Engineer)

- Difficulty Level :[Easy](#)
- Last Updated :19 Jul, 2019

- 1) Storage class
- 2) register qualifier
- 3) Const int *p and cont *int p;
- 4) [Reverse a link list](#)
- 5) Program to generate a packet(specifications were mentioned, some method were given as clue
- 6) program which can overflow a stack
- 7) Project related questions and cross questions
- 8) Program to swap the pointers such that- char *p = "\xe2\x80\x9chyderabad\xe2\x80\x9d and char q[20] = "\xe2\x80\x9cbanglore\xe2\x80\x9d, start pointing in way p =banglore and q = hyderabad

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[TopTalent.in] Interview with Rishav who got a job offer from one of the core companies, Qualcomm

- Difficulty Level : [Medium](#)
- Last Updated : 09 Jul, 2014



Engineers from core branches like Electronics, Mechanical, Chemical today are often found chasing lucrative employment in fields like IT and analytics, areas unrelated to what they spent four grueling years studying. But Rishav Rej of BITS Pilani, Hyderabad Campus decided to take the road less traveled by. Armed with an impressive resume that included plenty of experience and projects in his core branch, ECE, Rishav earned a place with one of the world's leading semiconductor and telecommunications company, Qualcomm. [TopTalent.in](#) brings you his opinions and advice about dealing with interviews.

TopTalent: How does it feel to be selected by Qualcomm?

Rishav: Great! I was always interested in Communication Engineering. Making it to one of the leading companies in MODEM technology, it really feels special.

TopTalent: Can you describe the complete hiring process of Qualcomm?

Rishav: Qualcomm had come in the first semester to hire fresh grads and recruit summer interns as well. Firstly, there was an online test and the shortlisted candidates were called for interviews. There were two rounds of interviews, one for technical and the other HR. Five of us were selected for the internship program of 10 weeks. During this interning tenure we were evaluated and our performance reviews were submitted. We also had to go through an Exit Interview. Combining both these components they selected 4 out of those 5 interns as new hires.

TopTalent: What was the toughest question you encountered and how did you answer it?

Rishav: Tell us about yourself was definitely one of them. This was the one question which I was certain would make all the difference as technically all my fellow candidates were very competitive. I took the opportunity of answering this question by telling the interviewer about my projects, internships and my interest in the field of wireless sensor networks, a field that works in close lines to Qualcomm's R&D. And the rest of the interview went smoothly.

TopTalent: What was your preparation strategy?

Rishav: I wasn't prepared actually on the day of my interview, but I was confident about what I know. So that confidence did help me through. During the internship period sincerity and dedication did the trick for me. Previous experience in the form of internships and projects can also come very handy. I had worked in the Engineering Section of Moser Baer India, MODEM-Automation Team of Qualcomm and in Research and Development for Tejas Networks. Also, I had done projects in the fields of Data Acquisition through Wireless Sensor Networks, Data Indexing in Wireless Sensor Networking and Optical Networking in Fiber Optics during my four years in college.

TopTalent: Can you talk about what resources you referred to before the interviews?

Rishav: I mostly referred to my class notes and went through the few technologies Qualcomm was working on. Basically I brushed up on concepts.

TopTalent: What were some important factors according to you that made you stand out?

Rishav: I cannot say that for myself, but one thing which I always ensured was to carry myself in a confident manner. I kept repeating to myself, 'There is nothing to be afraid of or nervous about'. I think the most crucial point is to be able to handle any situation well under pressure. I tried to constantly remain calm and I think that might have turned things to my favour.

TopTalent: Currently, what are you working on and how has the experience been so far?

Rishav: It's the third day since I've joined Qualcomm and been allotted my team. The general atmosphere and ambience here is awesome, everything that I had hoped it would be. Also, my peers here are the friends I had made during the internship, who joined the company along with me. Coming to my work, it is in CDMA, something which has always interested me. So far, it's been a perfect combination of work and fun. At present I am just taking my time to settle down and am definitely looking forward to a great experience ahead.

TopTalent: What is your advice to students who are aiming for similar placement offers?

Rishav: Be very clear about what kind of work you want to do. Remind yourself of your aim and always keep it in your mind. If you have clearly defined goals, you will be able to ensure that your preparation is organized and up to the mark. This will also give you the confidence to crack the toughest of interviews.

You can [login and download](#) Rishav's resume from [TopTalent.in](#)

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Qualcomm Interview | Set 2

- Difficulty Level :[Expert](#)
- Last Updated :19 Jul, 2019

It was a very good experience to face interview at Qualcomm.

I have attended the interview for a position of Embedded SW application developer and my experience and my expertise is on C/RTOS/Data structures in telecom domain.

Process: 1 Telephonic, 5 Technical, 1 HR round (each of 40min to 1 hr).

All rounds were not that much tough and interviewers were very friendly in talking.

Telephonic:

- All about your CV
- Lots of questions on project and how it works actually
- OS concepts and real examples
- Deadlock situations (detection ,prevention)
- Sw watchdog timers
- OS schedulers and algos
- Error handling in the system , Core dumps ,etc
- Memory management concepts
- IPC communications
- Mutex/critical section/semaphores

Note: All questions were asked deeply and need to tell him until he convinced with the answers.

After 2 days I got a call to come down to Qcom office for next rounds. That day went long..!!

Round 1:

- Basics of C programming
 - Memory map of program, Storage classes and their mapping
 - If we declare more number of variables than the registers available on the processor? Where they will be stored.
 - IPC (signal, as I coded in this) how actually it does transfer of memory
- Set of C code snippets given to debug Identify problems in it and tell outputs

And further questions on that.. like why ?

Round 2:

- Basic C questions
- Write a program to Delete a node , given only a pointer to the node in a Circular linked list
- How to access data in the called functions after returning from it (point here is that, cannot access auto variables in functions after it is being called off)
- Write a program to return a stream of bytes from a function
- Lots of questions on Function pointers, how, usage, examples

Round 3:

- Generic questions on project they are doing , how market values are there , what products are coming
- Memory handling in SIM cards/embedded applications
- Priorities of OS programs , process and thread differences
- How to handle the Generic functions , like Void pointers

Round 4:

- Write a own program for strstr function, optimal way
- Write a program to convert a given single Linked list to BST
- How a software development happens and what you do if you were given a product to develop
- Project questions
- How do you want to see yourself after a year, you intentions, aspirations

Round 5:

- Big & Little endian definitions, representations, write it down, swap them, etc
- Lots of memory related questions
- [Write a program to implement memcpy\(\) on your own](#)
- Need to evaluate many other conditions like overlap situations and etc.,
- Difference between library call and a system call

- Priority inversion in a RTOS and its solutions

Round 6 (HR):

- Qualcomm aspirations, culture and how you look to be next, feedback from us on the interview, Nothing much just a casual talk.

Note: All rounds, you need to explain about your project clearly and they can ask some really good questions from project. Be out and out clear with your projects and CV.

All interviewers will explain about the position you have applied for and it is good if you ask more questions on what exactly they do and how it works.

I did these interviews very good but unfortunately I was not into the Qualcomm after this. But they considered for another position and within a month I got another call and again 3 rounds of Technical Interviews as below,

Process: 3 Technical

Round 1:

- Network Traffic measurements
- Udp vs tcp, diff
- Os schedulers
- Timer module code // you need to write code for the timer module which actually handles timeout functionality for all clients and execute handlers of client at timeout. (things they looked for are how you design a given problem, callback functions, function pointers, etc)
- Questions on Call back functions
- Questions on function pointers
- [Program to Reverse a single linked list](#)
- [Program to Detect loop in a single linked list](#)
- Detect errors in pgm below

```
\r\nint main(void)\r\n{\r\n    char *p;\r\n    while(i<50)\r\n        p++;\r\n    return p;\r\n}
```

Round 2:

- Project details deeply
- Lpc , os schedulers
- Prioritized processes, weighted round robin
- sw wdog
- Memory management
- Mem leaks & corresponding tools
- Buffer overflows and impacts/problems from that
- Deadlock, methods to avoid, prevent, etc
- Semaphore, mutex, busy wait
- code for memcopy and problems, covering all error scenarios.

Round 3:

- Stack corruption
- Hacking through stack smashing
- Program debug
- Priority Inversion, ex
- Race conditions, ex
- Semaphore, mutex, ex
- Strcmp, pgm, ff ends it
- Arbit linked list pgm
- Memcpy pgm, possibilities like overlapped memory address copy.
- Small general DI puzzle
- Pointer subtraction

After this I was actually into my Dream Company and Happy..!!

I would sincerely Thank GeeksforGeeks very helpful in my preparation and hope this would be useful for other aspirants.

Many Many congratulations to the author. If you like GeeksforGeeks and would like to contribute, you can also write an article and mail your article to contribute@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.

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Qualcomm Interview | Set 1

- Difficulty Level : \n[Easy](#)
- Last Updated : \n19 Jul, 2019

Company : Qualcomm

Position: Summer Intern(Software)

Written Test

It was an online MCQ test. Time limit was one hour. There were around 55 question. It consists of three sections:

1) Aptitude Questions

Pretty simple.

2) Programming ability :

Patience is required to solve the questions. They were easy. Most of them had 3 to 4 nested loops.

3) Third section had questions from OS, CA, C++, DBMS. Most of them were from OS.

Technical PI (around 1.5 hr):

There was only one Technical Round

1) He asked me about my projects and made me write the pseudo code and flow chart for two projects. He wanted the perfect flow charts with the correct symbols used.

2) Priority Inversion (what, where and why)

3) Volatile Qualifier

4) Difference between static and global variable storage class

5) Questions on Storage classes

6) Toggle only second bit of a 8 bit char(both from right and left). Write one line code.

7) Coupling in C++ and Cohesion. Required combination(low/high).

8) All OOP concepts in C++. How they are implemented in C++.

9) How will you make a computer.(explanation of the components of computer).

10) Operating System uses(detailed explanation.)

11) How Application Software uses OS.

12) Drivers

13) CPU scheduling algorithms (one of my projects was on this). What and where each one of them should and shouldn't be used. Advantages and disadvantages, if priority is considered in each one of them. If already considered how it is affecting.

14) [Binary](#) and Linear search.

15) Three switch puzzle.

16) [Merge Sort](#) and [Quick Sort](#).

17) How will you improve any of your algorithm:discussed on space and time complexities.

This all I remember.

HR Round (30 minutes):

1) Introduction

2) She asked me about my projects, how you can enhance them, how they are useful to me.

3) Weakness, anything interesting thing about you that you can tell me.Examples for them.

4) Some points which you remember from the presentation.

5) Why Qualcomm, why you for Qualcomm?

6) What do you like more while working in a project , conceptualizing e.t.c and why?

7) Do you have any problem going out of station?

Selected.

This article is compiled by **Tapasweni Pathak**. Many Many congratulations to Tapasweni. If you like GeeksforGeeks and would like to contribute, you can also write an article and mail your article to contribute@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.

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