ACM Interview Prep Bootcamp

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Overview

All of us have dreamt of getting jobs and internships in great Multinational companies or some good start-ups. We all strive day in and day out to make our dreams come true. Since every goal has hurdles and challenges associated with it, we all get in need of some training to overcome that. One of those barriers is the interview round, which is seemingly very challenging and often difficult to crack as well, since many of us lack confidence even after acquiring all the technical skills as per required. There comes the need of someone who has already gone through that phase and can help you out with the interview preparation.

The journey to get into your dream company starts here!

Goals

This Interview preparation Bootcamp bridges the gap between the theoretical knowledge and the quick coding tips and tricks that the industry employers look for in their potential candidates. We will be covering all the major topics of Data Structures and Algorithms, along with important coding questions asked in the interview process of MNCs like Microsoft, Amazon, Salesforce, Goldman Sachs, Flipkart, Walmart, Samsung and so on.

Features

- 40+ Video Lectures and LIVE Sessions
- Mock Interview Sessions
- CV Building Session
- LIVE doubt sessions
- Notes and Source Code Availability
- Unlimited Access to the course content
- Certification from Multinational Companies
- Referrals to MNCs and Startups after the Bootcamp.

Grab this opportunity and put your first step towards your dream company.

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Specifications or Topics

1. **Welcome and Course Overview**

2. **Mathematics**
   a. Binary Exponentiation
   b. Pigeonhole Principle
   c. Problems on a, b and c topics

3. **Number Theory**
   a. LCM and GCD of numbers and arrays
   b. Primality Check
   c. Sieve of Eratosthenes
   d. Modular Arithmetic and MMI

4. **Arrays**
   a. Basics of 1D and 2D arrays
   b. Pointers
   c. Sorting (Bubble Sort, Insertion Sort, Selection Sort)
   d. Searching (Linear and Binary Search)

5. **Strings**
   a. Character arrays and C strings
   b. Basics of String class
   c. String Manipulation
   d. String Matching Theorems

6. **C++ Standard Template Library (STL)**
   a. STL containers
   b. Vector, String, List, Queue, Deque, Set, Map, Multiset
   c. Functions - Find, Lower Bound, Upper Bound, Sort and other Standard functions of the containers.

7. **Hashing**
    a. Hash Tables and Hash maps
    b. Types of Hashing
    c. Maps and Unordered Maps

8. **Recursion and Divide & Conquer**
    a. Basics of Recursive Functions
    b. Implementation of linear recurrences
    c. Divide & Conquer technique (Quick Sort and Merge Sort)

9. **Tree**
    a. Binary Tree (Concepts and Implementation)
    b. Binary Search Tree (Concepts and Implementation)
    c. Tree Traversals (Inorder, Preorder, Postorder, Level order)
    d. Classical Problems based on concepts of Tree Data Structure.

10. **Heaps**
    a. Implementation of Min Heap and Max Heap
    b. Heapsort and it's implementation

11. **Greedy Algorithm**
    a. Greedy Approach and it's basics
    b. Classical Problems on Greedy Algorithms

12. **Dynamic Programming**
    a. Optimal Substructure and Overlapping Subproblems
    b. Top down and Bottom up Approach (DP tables)
    c. Classical Problems on Dynamic Programming

13. **Graphs**
    a. Basics, Types and Implementation
    b. Depth First Search and Connected Components
    c. Breadth First Search and Shortest Path
    d. Bellman Ford and Floyd Warshall Algorithm
    e. Minimum Spanning Tree
    f. Topological Sorting