# 2 Day Special Workshops Technical Interviews

Day I

Yongwhan Lim Wednesday, April 12, 2023

# **Yongwhan Lim**









#### Education





#### Part-time Jobs







#### Full-time Job





### Workshops















#### Coach/Judge





https://www.yongwhan.io

# **Yongwhan Lim**









- Currently:
  - CEO (Co-Founder) in a Stealth Mode Startup;
  - Owner of Christian and Grace Consulting;
  - ICPC Internship Manager;
  - ICPC North America Leadership Team;
  - Columbia ICPC Head Coach;
  - ICPC Judge for NAQ and Regionals;
  - Lecturer at MIT;
  - Adjunct (Associate in CS) at Columbia;



https://www.yongwhan.io

### **Overview**

- Part I: Interview Preparation
  - Interview Types
  - Technical Interview
  - Interview Topics
  - Interview Preparation Resources
- Part II: Competitive Programming
  - CodeForces
  - o ICPC

# Part I: Interview Preparation

### **Interview Types**

- Technical Interview
  - Tests technical skill-sets required for a job.
- Behavioral Interview
  - Tests soft skills (e.g., effective communication, conflict resolution, etc)

### **Interview Types**

- Technical Interview
  - Tests technical skill-sets required for a job.
- Behavioral Interview
  - Tests soft skills (e.g., effective communication, conflict resolution, etc)

### **Technical Interview**

- Recruiter Call
- 0-1 Online Coding Challenge
  - automated screening with 2-3 questions.
- 2-3 Technical Phone Screens
  - first technical conversation with human.
- 4-7 Interviews in Onsite
  - similar to phone screening but more in-depth; you may get probed on your claimed expertise.
- 0-5 Fit Calls & Negotiation

### **Technical Interview**

- Recruiter Call
- 0-1 Online Coding Challenge
  - automated screening with 2-3 questions.
- 2-3 Technical Phone Screens
  - first technical conversation with human.
- 4-7 Interviews in Onsite
  - similar to phone screening but more in-depth; you may get probed on your claimed expertise.
- 0-5 Fit Calls & Negotiation

- Data Structures and Algorithms
- (> entry level) System Design Problems

- Data Structures and Algorithms
- (> entry level) System Design Problems

#### Fundamentals

- Arrays and Linked Lists
- Binary Trees
- Heaps
- Sorting

#### Important

- Stacks and Queues
- Hash Tables
- Binary Search Trees
- Searching
- Recursion

#### Real Differentiators

- Strings: Knuth Morris Pratt (KMP); Rabin Karp / String Hashing; Suffix Array; Suffix Automaton;
- Dynamic Programming: 1D; 2D; Interval; Tree;
- Greedy Algorithms and Invariants: Matroid;
- Graphs: Shortest Path; Flow / Matching; Minimum Spanning Tree;

### **Interview Preparation Resources**

#### Popular Websites

- LeetCode: Solve all four weekly/biweekly problems in <u>20 minutes</u>!
  - 1+2+4+8 (+5 buffer)
- CodeForces: Get to 2200+ rating
  - Clear 5 questions out of 6 **fast**!
- AtCoder; TopCoder; CodeChef;

#### Annual Contests

Meta Hacker Cup; Google Code Jam; TopCoder Open;

### **Interview Preparation Resources**

- Elements of Programming Interview
- Competitive Programming 4

# **Part II: Competitive Programming**

### **CodeForces**

Get to 2200+ rating as fast as you can!

• Join the training sessions through ICPC CodeForces Zealots (<a href="https://discord.gg/7bvMnMyF6G">https://discord.gg/7bvMnMyF6G</a>).

# **International Collegiate Programming Contest (ICPC)**

 If you would like to get involved in helping out as a volunteer or an official (unpaid) intern, please reach out to me at <a href="mailto:yongwoods@icpc.global">yongwoods@icpc.global</a>.

# 1:1 Meeting Opportunity

 If you would like to meet in 1:1, please sign up using: https://calendly.com/yongwhan/one-on-one.

I'd love to help you landing your <u>dream</u> job!

### **Sneak Peek into Part II...**

- We will briefly touch on how to do well in:
  - Behavioral Interviews;
  - System Design Interviews;
  - Machine Learning/Data Science Interviews;

 We will have few typical example questions that you can expect on each of these interview types!

### **Contact Information**

• Email: <a href="mailto:yongwhan.io">yongwhan.io</a>

Personal Website: <a href="https://www.yongwhan.io/">https://www.yongwhan.io/</a>

- LinkedIn Profile: <a href="https://www.linkedin.com/in/yongwhan/">https://www.linkedin.com/in/yongwhan/</a>
  - Feel free to send me a connection request!
  - Always happy to make connections with promising students!

