# **Technical Interview Workshop Information Session**

Yongwhan Lim Thursday, January 19, 2023

# **Yongwhan Lim**









#### Education`





#### Part-time Jobs







#### Full-time Job





#### Workshops













#### Coach/Judge





https://www.yongwhan.io/

## **Information Session: Overview**

- Logistics
- What is technical interview?
- Important Reminders

## Six (Perfect #) Saturday Online Sessions (ZOOM only!)

- Time Slot: 9am PT 2pm PT
- Dates:
  - Saturday, February 4
  - Saturday, February 18
  - Saturday, March 4
  - Saturday, March 18
  - Saturday, April 1
  - Saturday, April 15
- Zoom Registration: <u>Link</u>



### **Course Structure**

- On the first half, we will cover major topics required in technical interview preparations, through quickly introducing topics, followed by a few exercises curated for each topic.
- On the **second half**, we will go over problems from **weekly live contests** from LeetCode, AtCoder, and CodeForces.
- Top 3 presenters (e.g., Gold, Silver, Bronze) will get some prizes (TBD), on top of bragging rights!

# **Request 1:1** Meeting, through Calendly

- Use <u>calendly.com/yongwhan/one-on-one</u> to request 1:1 meeting:
  - Mock Interview
  - Career Planning
  - Resume Critique
  - Practice Strategy
  - Volunteering Opportunity
  - 0 ...
- I am always inspired by driven students like yourself!
- Since I'd feel honored/thrilled to talk to you, do not feel shy to sign up!!!

# (Optional) Textbooks

#### Algorithm and Data Structures Interview

o Elements of Programming Interviews: The Insiders' Guide, 2nd Edition, Adnan Aziz et. al.

#### Competitive Programming

- Competitive Programming 4, Halim et. al.
- Guide to Competitive Programming, Laaksonen

#### System Design Interview

- System Design Interview: An insider's guide, 2nd Edition, Alex Xu
- o The System Design Interview, 2nd Edition, Lewis C. Lin, et. al.

#### Introduction to Algorithms (CLRS)

## **Workshop Objectives**

- Master the fundamentals needed to succeed in any entry-level technical interview at top-tier IT companies.
- We will also touch on some of the system design and behavioral interview questions (even if those are typically not part of the entry-level technical interview loop).
- Along the way, we will give you a feel for what software engineers do on a day-to-day basis.
- Build your problem solving ability through actively working on problems from popular programming websites like LeetCode, AtCoder, CodeForces, etc.

## **Popular Language Choices**

- **C++**: Pick this one especially if you are considering to do ICPC
- Python
- Java

# (NOT-SO Optional) Assignments!

- Active participation in <u>LIVE</u> contests:
  - LeetCode; CodeForces; AtCoder;
  - Google Code Jam; Meta Hacker Cup; TopCoder Open;
- Practice on:
  - CSES; CodeForces; AtCoder; LeetCode; Project Euler; UVa; SPOJ; Kattis; USACO; ...
- Daily Zealot Set (through discord channel)

## **Important Note**

- Do <u>NOT</u> be AFRAID to ask! I <u>love</u> students asking questions.
- I am here to make you all succeed/pass in the actual interview.
- You can think of me as a coach rooting for your success in life.
- Let's pull this through together; I will lead you through this journey!

I am ready! ARE YOU?

## **Questions so far?**

If not, before finishing up, let's dive right into the "light" technical topic:
what actually is the technical interview?

## Interview

- There are generally two types of interview: technical and behavioral.
- This course will focus on technical interview.

## **Technical Interview**

- There are:
  - recruiter call
  - 0-1 online coding challenge
  - 2-3 technical phone screens
  - 4-7 onsite interviews
  - 0-5 fit calls and negotiation
- There are two types:
  - data structures and algorithms
  - system design problems
- Assuming most people are going for entry-level, we will mainly focus on the first type.

## **Interview Topics**

#### **Fundamentals**

- Primitive Type
- Array & Linked List
- Binary Tree
- Heap
- Sorting

#### **Important**

- Stack & Queue
- Hash Table
- Binary Search Tree
- Searching
- Recursion

#### **Real Differentiators**

- String
- Dynamic Programming
- Greedy Algorithm and Invariant
- Graph

## **Important Notes**

- Browse through <u>Terse Guides</u>, which include:
  - Behavioral interview preparation
  - System design interview preparation
  - ICPC preparation
  - Live contests
  - Useful resources
- Some discord server invitations:
  - [CMU-SV Technical Interview Workshop Series] <a href="https://discord.gg/7eybrQcggR">https://discord.gg/7eybrQcggR</a>
  - [ICPC CodeForces Zealots] <a href="https://discord.gg/QC9ss6WJPy">https://discord.gg/QC9ss6WJPy</a>

