

4th Year Computer Engineering Student at UBC 250.888.2533 | minkyu.song@outlook.com

# **SKILLS**

### LANGUAGES & FRAMEWORKS

C • TypeScript • JavaSript • Java Verilog • HTML • CSS • XML • Android React Native • ExpressJS (NodeJS)

#### **OTHERS**

Algorithm Design • Data Structures GDB • Git • ModelSim • LATEX Quartus II • IDA Pro • Android Studio

#### **SOFT SKILLS**

Bilingual (English, Korean) Leader • Initiator • Communicator

# **EDUCATION**

# UNIVERSITY OF BRITISH COLUMBIA BACHELOR OF APPLIED SCIENCE

Exp: Apr '22 | Vancouver, BC

Major in Computer Engineering 4th Year

#### UNIVERSITY OF VICTORIA

### GENERAL ENGINEERING

Victoria, BC

Transferred to the University of British Columbia after 1 year of studying general engineering topics.

# COURSEWORK

### **UNDERGRADUATE**

Computer Architecture
Operating Systems
Software Engineering
Intermediate Algorithm Design
Cybersecurity

# WORK EXPERIENCE

### **JAVASCRIPT TUTOR**

#### SELF-EMPLOYED

One-on-one tutoring with a brand new coder teaching basic concepts such as if, else branching looping, functions, etc.

# LINKS

Github: **smkjason** LinkedIn: **minkyusong** 

# INTERESTS

Machine Learning • Robotics LiDAR sensors & 3D Data Computer Architecture • Investing European Soccer • NBA • E-Sports

## **PROJECTS**

### JARVIS | MEETING SCHEDULER

Fall 2019 | Native Android App

- Built in Native Android App (Java and JavaScript) that finds time that works for the most people in their group based on their Google Calendar schedule.
- Implemented and designed the UI using XML and Java. This includes Activities, Layouts, Intents, Fragments and more.
- Handled all HTTP requests to the backend server.
- Designed the algorithm that finds a common free time by analyzing everyone's schedule.

### **CACHE/PIPELINE SIM** | COMPUTER ARCHITECTURE

Fall 2020 | Simulation in C

- Modeled Direct-Mapped, n-way Set Associative, Victim Caches to get insights to their effects and improvements of a simulated CPU.
- Utilized GDB debugger to debug memory manipulation, pointers and other useful states of data to ensure correct behaviour.

### **AUTHK-9** | JWT Security Inspector

Fall 2020 | Chrome Extension

 Built a Chrome extension that analyzes a websites handling of JSON Web Tokens(JWT) for any potential vulnerabilities of attacks such as CSRF, XSS in JavaScript.

### **VPN** | PRIVATE AND PROTECTED NETWORK

Fall 2020 | Desktop Application

- Created a VPN, in JavaScript, in which one machine can mutually authenticate with another machine and can send and/or receive data.
- Utilized secure crypto algorithms and hash functions such as AES-256, HMAC-SHA256 to maintain Confidentiality and Integrity of the messages.

### **INGRADEIENT** | INGREDIENT ANALYZER

Spring 2020 | React Native App

• Built an App, by using React Native, that gives environment and health related information of a product by reading the picture the user has taken.

# **DESIGN TEAMS & CLUBS**

### **UBC ENVISION** | Instrumentation Engineer

Sept 2020 - Current

Participating in the development of IoT system that monitors and automates the beer brewing process by using technologies such as Python, Raspberry Pi, and other sensors.

### KOINONIA | TREASURER

March 2019 - March 2020 | UBC

Managed all financial activity done by the club. Planned and organized all activities by having weekly meetings, continuous communication with other parties.

#### **AKCSE** | ACADEMIC EXECUTIVE

Sept 2018 - April 2019 | Ithaca, NY

Organized and planned all academic-related meetings and events held by Association of Korean Canadian Scientists and Engineers(AKCSE) club at UBC.