# Hwang-Geun Yi

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#### **EDUCATION**

# B.S. of Computer Science, Sungkyunkwan University (Major GPA: 4.13 / 4.5, Total GPA: 3.86 / 4.5)

- · Honors: Scholarship for admission
- · LeaderShip: President of the department soccer club
- · Coursework: OS, Software Engineerign, Computer Network, PL, Database, Algorithms, Automata, Data Structure, Open Source, Automata, System Program, JAVA, C, C++, Computer Architecture, Patent and Start up, ...
- · Skills: Linux, Virtualization(VM/Container), C,C++, Java, SQL, Kotlin, Docker, Git, Mobile App Developlment(Android)

### **WORK & LEADERSHIP EXPERIENCE**

### **MeritzFire** - Mobile Developer | IT Development Team @ Solution Unit

2024 - 2025

· Sales support APP mobile development and management

### **FADU Technologies** - SSD IP Engineer | SoC Team [Offer Accepted]

2024

· Fabless semiconductor company developing Flash SSD controllers and storage solutions

# **Samsung Electronics** - Software Intern | Solution PE Team @ Samsung Electronics DS

2023

Developed and optimized E-Storage performance benchmark tools for Apple devices

- · Built Mac OS & iOS testing frameworks utilizing C/C++ and Swift, developing filesystem test modules for both Sequential and Random Read/Write operations with advanced I/O controls (O\_Sync, O\_Direct, F\_Nocache)
- · Designed Aging test system to observe E-Storage Wearleveling characteristic during long-duration testing.
- · Implemented **chunk-based data pattern verification** that detects system testing failures and enables precise **test repair** from the point of interruption, significantly improving test reliability

## **Posco – International** | *Industry – Academic Cooperation Project*

2020

- · Developed an automatic collection of economic/financial market information by country and item
- · Made a crawling program and web page to increase work efficiency for Posco-International staff
- · Reduced crawling time from 55s to 10s by applying multiprocessing and multithreading

## PROJECT EXPERIENCE

# **Enhanced XV6** OS Project

2021

- · A simple Unix-like operating system designed for educational purposes at MIT.
- · Added a Priority field to the existing Process Structure and implemented system calls for priority adjustment
- · Implemented a Completely Fair Scheduler (CFS) using vruntime to ensure fair CPU allocation.
- · Enhanced memory mapping and memory management by implementing MMAP, Munmap, and a Page Fault handler.
- · Implemented page replacement using an LRU list & the Clock algorithm to manage swap-in/out when memory is low.

# Maximize Open Source Program Branch Coverage using limited TC Software Engineering

2024

- · Developed 30 test cases to maximize branch coverage of the open-source C program 'find' command
- · Achieved comprehensive code analysis and test case optimization using **gcov** tool
- · Ranked 3rd among 100 students through persistent effort and dedication to maximizing performance metrics