Cheng-Ying (Marvin) Hsin

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EDUCATION

University of California-Berkeley, CA **Sep 2021 – Present**
Bachelor of Arts in Computer Science – GPA 3.70/4.0.

Foothill College, CA **Sep 2018 - June 2021**
Associate Degree in Computer Science – GPA 3.95/4.0

Relevant Coursework:
Object-Oriented Design (**proficient in C++**, **Java**, **Python**), Data Structures and Algorithms, Computer Architectures, Software Engineering, Operating Systems, Cloud Computing, Computer Security, AI/ML

TECHNICAL SKILLS

Languages: Python, C, Java, C++, SQL, Ruby, JavaScript, HTML/CSS, Golang, R, C#, RISC-V, Scheme
Libraries/Framework: Git, Linux, Node.js, Docker, Kubernetes, AWS, Agile, RESTful, CI/CD, Ruby on Rails
Certificate: AWS Certified Cloud Practitioner (July 2023)

WORK EXPERIENCE

RRR Computer Organization, *San Francisco CA* **July 2019 – Aug 2019**
Full Stack Engineer Internship

- Leveraged **Google Analytics** to track and analyze user behavior for over 1,000+ web browsers.
- Revamped website layout and architecture, leveraging **HTML, CSS,** and **JavaScript**, resulting in a remarkable 30% increase in average browsing time, enhancing user engagement and satisfaction.
- Established a **SQL** database system to link and manage information from individual computer donors.

HIGHLIGHTED PROJECTS

PintOS in C **Aug 2022 – Dec 2022**

- Created a uniprocessor **operating system** from scratch in **C** and Assembly, optimizing resource utilization for single-core systems.
- Designed and implemented kernel modules including multithreads management, user programs management and virtual memory module.
- Supported 15+ syscalls, floating point operation and file system operations with strict priority scheduler.

End-to-End Encrypted File Sharing System in Go **Jan 2023 – May 2023**

- Built a secure file sharing system like Dropbox in **Go**, leveraging cryptography techniques for data protection, user authentication, and secure sharing.
- Designed the user login system and secure file sharing process and implemented 8+ relevant client APIs.
- Optimized performance efficiency and bandwidth usage by 90% and ranked top 10% across the class for the performance in the file sharing, overwriting, appending, uploading and downloading processes.

Gitlet in Java **Jan 2022 – May 2022**

- Developed a robust Git-like **version control system** in **Java**, featuring advanced capabilities for efficient branching, merging, and conflict resolution, making it suitable for complex software projects.
- Implemented a user-friendly command-line interface (CLI) with supported 13 essential git commands such as add, commit, status, checkout, log, branch, and merge.
- Enhanced 50% system performance through strategic design choices, including efficient **data structures** and algorithms.