Daniel Okazaki

LinkedIn : www.linkedin.com/in/dtokazaki
Github : https://www.github.com/dtokazaki
Website: http://students.engr.scu.edu/~dokazaki/portfolio/
daniel.t.okazaki@gmail.com
(408)627-2851
Santa Clara, CA

WORK EXPERIENCE

Senior Firmware Engineer — **July 2020 - Current**
Western Digital — **San Jose, CA**

- Co-lead of developer and customer logging infrastructure for entire development process using AIO with an emphasis on redundancy and reliability. Increased redundancy and reliability 3x from original infrastructure.
- Co-designed and implemented logging infrastructure and companion applications in C to parse and retrieve binary logs from disk in x86, ARM, and emulation environments
- Ported a custom network daemon and hardware abstraction layer in Golang to expose platform specific system functionality to a higher level REST API
- Developed and tested install, code load, update, and rollback scripts
- Setup and initialized x86 and ARM blade server prototypes

Platforms Firmware Engineer Intern — **June 2019 - July 2020**
Western Digital — **San Jose, CA**

- Setup and prepared SMR drive emulation environment in QEMU for test infrastructure
- Ported production logging infrastructure to SPDK based application
- Designed and implemented startup, initialization, and factory reset Bash scripts in x86, ARM, and emulation environments

EDUCATION

Master of Science (M.S), Computer Science and Engineering — **June 2020**
Santa Clara University, Santa Clara, CA

Bachelor of Science (B.S), Computer Science and Engineering — **June 2019**
Santa Clara University, Santa Clara, CA

TECHNICAL SKILLS

Languages: C, C++, Python, SQL, Golang, Java, Bash
Operating Systems: Windows, Mac, Linux
Tools/Framework: AWS(Lambda, DynamoDB, and API Gateway), Docker, Jenkins, Git, Jira
Familiar: Javascript, HTML, CSS, ARM/Intel Assembly, RISC-V, Yocto
General: Compilers, Architecture, Algorithms, Data Structures, Object Oriented Programming, Artificial Intelligence, Database Systems

PROJECTS

NBA Topshot Market Application — **April 2021**
Created a multi threaded application in Golang and Cadence to retrieve transaction events on the Flow public Blockchain to fill a local mySQL database. New market listings that are sufficiently below current market rates are sent to a Discord HTTP webhook for real time notifications.

- **Technology/Tools:** Golang, Cadence, Flow API, MySQL

Mechanical Keyboard Project — **January 2020 - Current**
Working with a partner to design and manufacture a custom aluminum 75% RGB mechanical keyboard compatible with Cherry MX switch variants. Creating a PCB schematic and footprint in Eagle for production manufacturing and developing on open source QMK Firmware.

- **Technology/Tools:** C, Eagle, QMK Firmware, Arduino

Blockchain Research — **April 2019 - June 2020**
Worked with a partner to create a flexible parameterizable Blockchain framework in Python in order to analyze new chain verification schemas and compare with proof of work and proof of stake. Developed our own TCP communication scheme to establish communication between nodes and automatically update the chain. The base version of this framework is based loosely on the Bitcoin white paper as a baseline benchmark for future versions.

- **Technology/Tools:** Python, Postman

NavSense — **September 2018 - October 2019**
Worked with a team to create a mobile assistive device for the visually impaired using machine learning for our Santa Clara University capstone project. Built using a Raspberry Pi 3B+ and Google Coral Accelerator.

- **Awards:** Computer Engineering Technical Excellence Award, Senior Design Presentation Award
- **Technology/Tools:** Python, cv2, EdgeTPU API, Intel Movidius Neural Compute SDK
- **IEEE Link :** https://ieeexplore.ieee.org/document/9033125

Santa Clara University 2017 Hack for Humanity Finalist — **March 2017**
Worked together in a group to create a website that displayed the current bills and legislature passing through the California Government.

- **Technology/Tools:** HTML, CSS, Javascript, Web API