Daniel Okazaki

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SOFTWARE ENGINEER

Software Engineer with a background in developing reliable software programs and systems. Experienced strategizing ideas and collaborating with other engineers during the design process. Consistently catches coding errors and has great time management skills; able to work quickly and efficiently to solve problems. I'm a highly motivated individual with a keen interest in working on and developing cutting edge technology. I'm known for being hardworking and reliable with great time management skills and a high quality of work. Key strengths include:

Software Development | Software Architecture | Team Leader | Highly Motivated
Great Communicator | Flexible

WORK EXPERIENCE

Google, Mountain View, CA
Software Engineer, August 2021 – Present
Working with a small team to design for and expand the Google Nest platform.

Western Digital, San Jose, CA
Senior Firmware Engineer, July 2020 – June 2021
Co-lead for developer and customer logging infrastructure in C 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 that exposed platform specific system functionality to a higher-level REST API.
- Developed and tested install, code load, update, and rollback scripts in Bash.
- Setup and initialized blade server prototypes.

Platforms Firmware Engineer Intern, June 2019 - July 2020
Worked on a small team of developers to design and implement a platforms firmware application for a hardware server product.

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

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 Project

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 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 - Present

- 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

Blockchain Research, April 2019 - June 2020

- Worked with a partner to create an exible parameterizable Blockchain framework in Python to analyze new chain verification schemas to compare with proof of work and proof of stake.
- Developed TCP communication scheme that established communication between nodes and automatically updated the chain. The base version of this framework was based loosely on the Bitcoin white paper as a baseline benchmark for future iterations.

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.
- Product provided text-to-speech information about the current environment to the user, allowing them to have a better understanding of what objects were in their environment.
- Received a Computer Engineering Technical Excellence Award and a 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

EDUCATION

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

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