Daniel Okazaki

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Santa Clara, CA

EDUCATION Santa Clara University, Santa Clara

 $Master\ of\ Science\ (M.S),$ Computer Science and Engineering

Expected June 2020 GPA: 3.8/4.0

Santa Clara University, Santa Clara

Bachelor of Science (B.S), Computer Science and Engineering

June 2019 GPA: 3.3/4.0

TECHNICAL SKILLS

Languages: C, C++, Python

Operating Systems: Windows, Mac, Linux

Tools/Framework: AWS(Lambda, DynamoDB, and API Gateway), SPDK, Docker, Jensen, GitHub,

Jira

Familiar: Javascript, HTML, CSS, ARM/Intel Assembly, RISC-V

General: Compilers, Architecture, Algorithms, Data Structures, Object Oriented Programming, Ar-

tificial Intelligence

EXPERIENCE

 ${\bf Platforms} \ {\bf Firmware} \ {\bf Engineer} \ {\bf Intern}$

June 2019 - Current

April 2018 - June 2018

Western Digital

Volunteer STEM Instructor

Kennedy Elementary School

Taught elementary students about Arduinos. Lessons based on basic circuit design and programming

using the Snapino kit.

PROJECTS

Blockchain Research

April 2019 - Present

Working with a team to create a flexible parameterizable Blockchain implementation, then iterating on top of it to make a custom Blockchain architecture that is in theory far more scalable than current implementations that are using proof of work and proof of stake. Implementation in Python.

Compiler Optimizations

September 2019 - December 2019

Built a compiler in C++ that covers the Simple C syntax. After building the compiler, implemented the following optimizations: Constant Folding, Algebraic Simplifications, Local Value Numbering, Local Register Allocation, Dead Code Elimination, Copy Propagation, and Common Sub-expression Elimination.

Branch Predictor April 2019 - Present

Worked in a team to build local, correlating, global, and tournament branch predictors to test their accuracy. Our results showed that a similarly sized tournament predictor using a global and a correlating predictor were able to match the performance of the gshare predictor.

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. Paper published in IEEE.

- Awards: Computer Engineering Technical Excellence Award, Senior Design Presentation Award
- \bullet Technology/Tools: Python, cv2, EdgeTPU API, Intel Movidius Neural Compute SDK

Bug Reporting System

Oct 2018 - Nov 2018

Worked with a team to create a bug tracking system for the Santa Clara University IT Department.

- Technology/Tools: HTML, JavaScript, CSS, AWS(Lambda, API Gateway, and DynamoDB)
- Link: https://github.com/dtokazaki/BugTracker

Santa Clara University 2017 Hack for Humanity Finalist

March 2018

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
- Link: https://github.com/nsampemane/VoteCa

RELEVANT COURSES

- $\bullet \ \, \text{Advanced Compilers} \bullet \ \, \text{Advanced Architecture} \bullet \ \, \text{Software Ethics} \bullet \ \, \text{Internet of Things} \bullet \ \, \text{Artificial Intelligence} \bullet \ \, \text{Software Engineering} \bullet \ \, \text{Compilers} \bullet \ \, \text{Energy Efficient Computing} \bullet \ \, \text{Advanced Algorithms}$
- Advanced Operating Systems (Linux) Discrete Math Computer Networks (TCP,UDP)
- Web Usability Engineering Ethics Advanced Data Structures Digital Integrated Circuit Design

ADDITIONAL ACTIVITIES

- Member of Association for Computer Machinery
- Enthusiast Custom Computer Builder