

# Daniel Okazaki

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## 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, Artificial Intelligence

## EXPERIENCE

**Platforms Firmware Engineer Intern** **June 2019 - Current**  
Western Digital

**Volunteer STEM Instructor** **April 2018 - June 2018**  
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, 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 Subexpression 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
- **Technology/Tools:** Python, cv2, EdgeTPU API, Intel Movidius Neural Compute SDK
- **Link :** <https://github.com/dtokazaki/NavSense>

**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

• Advanced Compilers • Advanced Architecture • Software Ethics • Internet of Things • Artificial Intelligence • Software Engineering • Compilers • Energy Efficient Computing • 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