

EDUCATION

California Polytechnic State University

June 2024

Bachelor of Science, Computer Engineering

Magna Cum Laude

President's Honor List

3.8 GPA

34 ACT

RELEVANT SKILLS

Languages: SystemVerilog, C/C++, Python, RISC-V Assembly

Applications: UNIX, Verdi, Perforce, Git / Github, Xilinx Vivado, Jupyter Notebooks, Jira

Interests: Computer Architecture, Design Verification, CPython, Alternative Design Verification Tools

EXPERIENCE

Apple

August 2024 - Present

Design Verification Engineer

Apple

April 2023 - Sept 2023

CPU Design Verification Intern

- Implemented a sophisticated design verification framework to run tests on multiple Apple CPUs. Will save countless time and compute resources after replacing the older verification framework.
- Utilized SystemVerilog with C++ DPI transactors.

Cal Poly University

June 2022 - Mar 2023

Student Researcher

- Started a research group of undergraduates, graduates, and faculty to design and implement a flexible SOC design framework, leveraging open-source tools.

Blue Marble Communications

June 2021 - Dec 2021

Software Engineering Intern

- Worked on an interdisciplinary team to design and test optical satellite modems and transceivers.
- Wrote unit tests in C to automatically analyze production code for embedded FPGA hardware.
- Designed Python package to automatically control oscilloscopes and testing equipment over a network.

PROJECTS

Senior Project

Python Based Design Verification Framework

- Designing and implementing a novel, open-source, Python-based design verification framework for emulation, as opposed to prior simulation-based frameworks.

CAPSTONE

Mars Rover

- Working on interdisciplinary team of undergraduates to design a space-rated Mars Rover.
- Personally leading team to implement hardware acceleration for machine vision and robot arm kinematics

RAMP Core

<https://cal-poly-ramp.github.io>

- Worked with engineering faculty in the SURP program to design and implement an open-source, superscalar, out-of-order RISC-V processor targeted at research and education.

ACTIVITIES

Cal Poly Space Systems Avionics Software Engineer

- Lead telemetry team to write ground station code for receiving, recording, and visualizing rocket data using Python, InfluxDB, Node, and React.

CPython Volunteer Contributor

- Implemented union operator for Python chainmaps in PEP 584.