

Trevor McKay

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trmckay.com



github.com/trmckay



Education

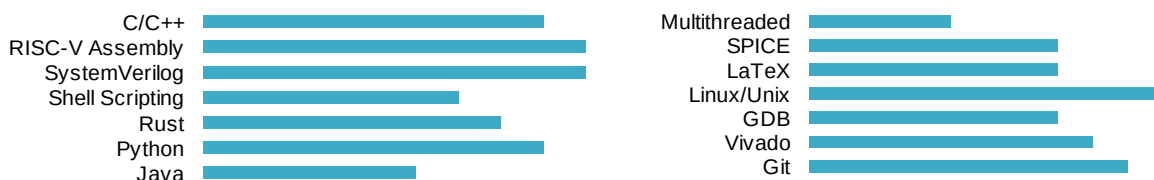
California Polytechnic State University, San Luis Obispo

- Bachelor of Science in **Computer Engineering**, German Minor
- **GPA: 3.510 | Major GPA: 3.683**
- Three-time **Dean's List Honoree** (Fall 2018, Winter 2020, Spring 2020)
- Projected graduation in Spring of 2022

Highlighted coursework

- Systems Programming
- Computer Graphics
- Computer Architecture
- Computer Security
- Data Structures
- Circuit Analysis

Skills



Projects

- **Wrote multi-threaded emulator for a specific CPU architecture** in Rust November 2020
- **Ported original debugger** to Cal Poly's RISC-V Otter CPU using a hardware adapter August 2020
- **Created a GDB-like debugger** for 32-bit RISC-V CPUs over two-wire serial UART July 2020
- Worked with CPE/EE professors to **refine computer architecture class material** July 2020
- Wrote app to fetch saved links through Pocket API and save to a spreadsheet June 2020
- **Optimized existing CPU architecture to introduce caching and a five-stage pipeline** March 2020
- Wrote a **C-based Unix shell** with file-redirection and interprocess communication November 2019
- Modified SystemVerilog VGA driver and framebuffer to support higher resolutions May 2018
- Devised a **fast edge-detection program for devices** without hardware multiplication May 2018
- **Implemented RISC-V RV32I microprocessor** in SystemVerilog April 2018

Experience

TA for Computer Design and Assembly Language

Cal Poly CPE/EE Dept. | Winter 2021

- Refined software toolchain for course
- Improved technical communication and teamwork

TA for Digital Design (2 sections)

Cal Poly CPE/EE Dept. | Fall 2020

TA for Computer Architecture

Cal Poly CPE/EE Dept. | Summer 2020

- Designed new debugging toolchain for CPU

TA for Computer Design and Assembly Language

Cal Poly CPE/EE Dept. | Fall 2019

Study Session Leader

Cal Poly ASC | Spring 2019 – Present

- Led supplementary instruction groups in STEM courses
- Gained leadership skills in a technical setting

Crewmember

Trader Joe's | 9/2017 – 1/2019