Bradley Kenneth Hutchings

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🎓 EDUCATION

Colorado School of Mines - Golden, CO   July 2021 - May 2025
Bachelor of Science, Computer Science   CSCI GPA: 3.04
Mines EE Classes: **Circuits**, **Digital Logic**, **PCB Design**, and **Elements of Computing**.

Napa Valley College - Napa, CA   January 2017 - January 2021
Certifications: **Autodesk Fusion360**

ℹ️ TECHNICAL SKILLS

Software Tools | Linux, Git, PlatformIO, Fusion360, EagleCAD, FreeCAD, KiCAD
Hardware Tools | Oscilloscope, Arduino, THT & SMD Soldering
Languages | Python3, C/C++, Rust, Go, JavaScript, Postgres SQL
Protocols | I2C, SPI

💼 WORK EXPERIENCE

Contractor Work: Tech Lead & Manager - SwingLens LLC   May 2025 - June 2025
• Managed a team of 7 intern engineers whilst working closely with other advisors.
• Advised on **Python**, **Flask**, **Hardware** configuration, and industry programming practices.
• Developed and open-sourced a **Python** tool for importing **Jupyter Notebooks**.

Research Internship - CSM & National Science Foundation   May 2024 - September 2024
• Automated data aggregation, filtering, and processing with **Python** and **Pandas**.
• Trained **SciKitLearn** models to identify vulnerable network data.

Product Development Internship - Analytical Data Systems   May 2023 - August 2023
• Developed a toolchain to have LLMs to introspect and reprompt for more normalized
  results based on user-defined qualities.
• Implemented several interfaces to interact with the service from Discord or a custom web
  client in **JavaScript**.

</> PROJECTS

NovaMill Open Hardware PCB Mill - Author   July 2025 - Present
NovaMill is a work in progress Open Hardware desktop PCB Mill with the goal of making
rapid PCB prototyping easier as faster.
• Real-time motor and sensor control with **Pi Pico 2 W** running **Marlin**.
• **Pi Zero 2 W** running custom **Linux** distribution for on-device **machine learning**
  corrections.

BreadLeaf-8 (BL-8) Hardware Implementation - Author   June 2025 - Present
Working towards implementing my custom **8-bit** Computer based on **74HC** chips. The
architecture is based on my **Distributed Custom ISA Execution Environment** software project.
• Designed and iterating on **custom toolchain** to edit my CPU's **microcode**.
• Implementing **FPGA** adaptaion to be implemented in **Tiny Tapeout ASIC** project.

BreadPod (Muserve Hardware Companion) - Author   September 2024 - Present
• **ESP32** based music player with touch control.
• Communicates with **Muserve Server** software project.

Robotics Software Engineer - FRC #7667   November 2018 - June 2019
• Competed in the 2019 Houston World Championship.
• Fabricated and implemented a game piece manipulation mechanism using **C++** and **WPILIB**.

Last Updated: September 13, 2025