LOGAN CASKEY

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EDUCATION

University of Colorado, Boulder August 2021 - Current
Bachelor's of Science in Electrical/Computer Engineering

Fort Lewis College August 2020 - May 2021
Bachelor's of Science in Electrical/Computer Engineering

PROFESSIONAL EXPERIENCE

EPA P3 Grant Research Assistant Sep 2020 - April 2021
Fort Lewis College, Durango CO

- Implemented a PID control system using an Arduino UNO to reach target temperatures for rapid bacteria culturing
- Linux UI development using Python/CSS frontend, and C++ for backend and embedded tasks
- Contributed as part of an interdisciplinary team, developing effective communication skills on technical and high level topics

PROJECTS

Modular Analog Computer with Additional Systems August 2025 - May 2026
Senior Design Project

- Acted as team lead for 4 other students, with a variety of technical roles (System Architect, PCB Designer/Assembler, and Software Manager) in the development of a modular analog computer system used as the foundation to teach a new controls course created at CU Boulder.
- Designed discrete modular op-amp circuits (integrators, gain blocks, adders/subtractors) with saturation detection, enabling interchangeable components for building feedback and PID control loops
- Developed a Linux-based 4-channel digital oscilloscope application using Qt ran on a Raspberry Pi Zero
- Built a cross-platform toolchain using Docker, QEMU virtualization, Git and deployment scripts to accelerate software iteration and development for ARM/x86 architectures
- In addition to the Analog Computer, additional tertiary systems were developed to visually demonstrate simple control systems

SKILLS AND INTERESTS