

## PROFESSIONAL SUMMARY

Electrical engineer with experience in controls, cryogenic systems, and hands-on laboratory testing. Background includes embedded-style control logic, sensor and actuator integration, wiring harness design, and system diagnostics. Experienced with cryogenic and vacuum systems, PID control concepts, and Python and C/C++ development. Proven ability to troubleshoot complex hardware, analyze test data, and maintain technical documentation.

## SKILLS

- Wiring Harnesses
- Python and C++
- PID Controls
- Cryogenic Systems
- Vacuum Systems
- Embedded Controls
- Data Acquisition
- EM Shielding
- NFPA Standards

## PROFESSIONAL EXPERIENCE

### Denver Water – Denver, CO

#### *Engineering Specialist | 03/2025 –Present*

- Interpreted electrical instrumentation and controls diagrams to support diagnostics, testing, and system documentation.
- Gathered and analyzed field data to support troubleshooting, performance evaluation, and maintenance planning.
- Supported integration and documentation of sensors and control devices across 35+ facilities.
- Maintained structured technical records, data logs, and configuration documentation.

### Silicon STEM Academy – Denver, CO

#### *Director of Operations/Instructor | 05/2022 – 08/2023*

- Taught Python programming, robotics, automation, and engineering safety practices.
- Developed hands-on control and diagnostics curricula emphasizing sensors and actuators.
- Managed technical laboratory operations and instructional equipment.

### United States Air Force – Multiple Locations

#### *Radiology Technologist | 04/2012 – 14/2018*

- Operated and maintained complex electromechanical imaging systems.
- Performed system troubleshooting, quality assurance, and safety compliance checks.
- Delivered technical training to large multidisciplinary teams.

## EDUCATION

Bachelor of Science, Electrical Engineering – University of Colorado Denver, 2024

Certificate in Quantum Information Technology

Bachelor of Science, Applied Computer Science – University of Colorado Boulder (In Progress)

## CERTIFICATIONS

Engineer in Training (EIT) – Colorado Board of Licensure (#EI.0080365)

## PROJECTS

### Autonomous Rover – Colorado Space Grant Consortium

- Designed embedded-style motor control and object-avoidance algorithms using Python and C.
- Implemented closed-loop control logic for real-time motor actuation.
- Integrated sensors, actuators, and wiring harnesses into a unified system.
- Developed testing procedures and data-logging methods for performance validation.

### Cryostat Instrumentation & Wiring Harness Upgrade

- Upgraded cryostat wiring harness to integrate a fourth silicon diode thermometer while maintaining 4K operation.
- Designed wiring schematics compatible with cryogenic and vacuum constraints.
- Installed and calibrated temperature sensors to improve thermal diagnostics.
- Performed continuity testing and vacuum leak detection on dilution refrigerator and pulse tube systems.