

Summary

Electrical and Mechanical Engineer with hands-on experience in RF hardware compliance testing, reliability analysis, and hardware verification. Solid foundation in linear systems, stability analysis, and control systems design, with applied experience in modeling and data analysis using Python, MATLAB, and Simulink. Proficient in mechanical design using SolidWorks, with exposure to firmware-hardware interfaces and scripting for test automation. Actively seeking a role where I can contribute to electromechanical system testing, modeling, and control within a collaborative, mission-driven team.

Technical Skills

Mechanical Design	SolidWorks CAD, 3D modeling, mechanical drawing review, BOM generation, machining, soldering, hands-on electrical/mechanical assembly
Compliance and Testing	CE, FCC Part 15, UL certification, reliability and endurance testing, emissions testing
Software	Simulink, RSLogix, MATLAB, Python, AutoCAD, SolidWorks, C/C++
Diagnostics	Oscilloscopes, multimeters, power supplies, I/O validation

Experience

- 11/2024 – **Calibration Technician**, *Liberty Test Equipment*, Roseville, CA
 - 03/2025 ○ Executed high-precision electronics test lab equipment calibration in an A2LA-accredited lab.
- 05/2023 – **Certification Test Engineer**, *Trackonomy Systems*, San Jose, CA
 - 06/2024 ○ Led hardware compliance testing for CE, FCC Part 15, and UL standards, increasing certification approvals by 30%.
 - Conducted mechanical reliability and endurance testing to ensure product compliance.
 - Supported R&D by sourcing UL-compliant enclosure material, rendering SolidWorks drawings, creating detailed reports for certification, and coordinating meetings with labs.
 - Collaborated with cross-functional teams to secure market access for new products.
- 03/2019 – **Maintenance Technician**, *Peregrine School*, Davis, CA
 - 11/2022 ○ Managed facilities repair and maintenance, designed and fabricated mechanical fixtures for school facilities, including cost estimation and project planning.
 - Coordinated with stakeholders to complete improvement projects on time and within budget.
- 05/2013 – **Certified Technician**, *Community Housing Opportunities Corp.*, Vacaville, CA
 - 06/2016 ○ Performed weatherization for a non-profit, ensuring home efficiency and natural gas appliance safety.

Education

- 2016 – 2024 **California State University**, *Sacramento, CA*
 - **Master of Science in Electrical and Electronic Engineering**
 - **Bachelor of Science in Mechanical Engineering**

Projects

- Graduate Thesis Developed Sequence-to-Sequence **neural network** models to predict control outputs for closed-loop temperature regulation systems, improving model accuracy for temperature stability, PID.
- Racing Projects Machined and tested components for the Sac State formula SAE racing team. Off-campus, participation in the 24 Hours of Lemons race, contributed to mechanical repairs and **vehicle optimization**, simulated **inverted pendulum** stabilization LQR, vehicle dynamics **MPC**