

Summary

Early-career engineer with a foundation in both electrical and mechanical principles and hands-on experience in product development and testing. Background includes vehicle systems, compliance testing, and problem-solving in electronics labs, manufacturing, and field settings. Skilled in reading schematics, contributing to Bills of Materials (BOM), and using CAD-driven documentation. Proficient in Python, MATLAB, and C-based environments. I bring a practical, cross-disciplinary perspective to engineering challenges, with a focus on reliability and real-world performance.

Technical Skills

Controls	PID tuning, ladder logic Allen-Bradley, classical control theory and feedback
Software	Simulink, MATLAB, Python, AutoCAD, SolidWorks, C/C++
Diagnostics	Oscilloscopes, multimeters, power supplies, electronics troubleshooting, calibration, emissions testing, I/O validation, Digital acquisition
Fabrication	Soldering, machining, prototyping, automotive diagnostics, hands-on electrical & mechanical

Experience

- 11/2024 – **Calibration Technician**, *Liberty Test Equipment*, Roseville, CA
 - 03/2025 ○ Executed high-precision calibration of electronics test lab equipment 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 root cause analysis to improve product reliability and regulatory compliance.
 - 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, 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.
 - Provided excellent customer service and community support.

Education

- 08/2018 – **Master of Science, Electrical and Electronic Engineering**, *California State University, Sacramento*, CA
 - 12/2024 ○ GPA: 3.67
 - Focus: Control Systems, Signal Processing, Modeling, Robotics
 - Thesis: Applied a **neural network** + attention mechanism to a classical controls problem.
- 08/2016 – **Bachelor of Science in Mechanical Engineering**, *California State University, Sacramento*, CA
 - 05/2018 ○ Coursework: Dynamics, Thermodynamics, Mechanics of Materials, Fluid Mechanics
 - Senior project involved applying mechanical design principles to an illuminated roadside pantograph.

Projects

- Racing Projects Machined and tested components for Sac State Formula SAE team; participated in 24 Hours of Lemons endurance race, contributed to mechanical repairs and **vehicle optimization**.
- Simulation Modeled **inverted pendulum** stabilization using control theory.