J. Echeverria

www.jecheverria5252.com/2025-resume-x4jK92vD/controls.pdf

Summary

I'm an early-career engineer with a strong foundation in classical control systems and applied experience across automation, vehicle dynamics, and hardware environments. My background includes PID tuning, system stability, and translating theoretical models into real-world control strategies. I've worked in diverse technical settings—from warehouses and electronic labs to agricultural equipment manufacturers—gaining exposure to industrial workflows and control-related challenges. I'm drawn to fast-moving operations where control logic, hardware behavior, and process flow intersect. Currently seeking roles in automation, controls, and system reliability engineering.

Technical Skills

Controls PID tuning, ladder logic Allen-Bradley, classical control theory and feedback

Software Simulink, RSLogix, MATLAB, Python, AutoCAD, SolidWorks, C/C++

Diagnostics Oscilloscopes, multimeters, power supplies, electronics troubleshooting, calibration, emissions

testing, I/O validation, Digital aquisition

Fabrication Soldering, machining, prototyping, automotive diagnostics, hands-on electrical & mech. repair

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 O Led hardware compliance testing for CE, FCC Part 15, and UL standards, increasing certification approvals by 30%.

O Conducted root cause analysis to improve product reliability and regulatory compliance.

O 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.

 \circ Coordinated with stakeholders to complete improvement projects on time and within budget.

05/2013 - Certified Technician, Community Housing Opportunities Corp., Vacaville, CA

06/2016 O Performed weatherization for a non-profit, ensuring home efficiency and natural gas appliance safety.

O Provided excellent customer service and community support.

Education

2016 – 2024 California State University, Sacramento, CA

Master of Science in Electrical and Electronic Engineering

Bachelor of Science in Mechanical Engineering

Projects

Graduate Developed Sequence-to-Sequence **neural network** models to predict control outputs for closed-Thesis loop temperature regulation systems, improving model accuracy for temperature stability.

Racing Machined and tested components for the Sac Stat formula SAE racing team. Off-campus, Projects participation in the 24 Hours of Lemons race, contributed to mechanical repairs and **vehicle optimization** for endurance performance.

Various Simulated **inverted pendulum** stabilization for self-balancing scooter in Simulink. Modeled Controls evasive vehicle maneuvers using system equations in MATLAB. Conducted vehicle dynamics and Projects model predictive control simulations. Developed a PLC-based Simon Says game in RSLogix.