

# Madeleine Masiello

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555 Ramona Drive #75, San Luis Obispo, CA 93405

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## ELECTRICAL ENGINEER

Motivated EE student with extensive hands-on experience in PCB design, circuit analysis, and hardware debugging, specializing in Altium, circuit design, and system integration. Proven track record of designing complex electrical systems, optimizing production processes, and resolving critical hardware issues. Skilled in managing technical projects, collaborating across teams, and delivering innovative solutions for real-world challenges. Strong foundation in circuit theory, power systems, and microcontroller programming, ready to contribute effectively to advanced engineering projects.

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## KEY SKILLS & PROJECTS

Industry level PCB design (Altium)	Arduino	RISC-V Microcontroller
SolidWorks	HDL/Verilog	AC/DC Circuit Analysis & Theory
Python/C/Java/Assembly	Power System Design	Object-Oriented Programming Code Refactor Project
SPICE	System Analysis	MATLAB/Simulink

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## PROFESSIONAL EXPERIENCE

### Edge Autonomy - San Luis Obispo

June 2024 - September 2024

#### Electrical Production Test Intern

- Designed two PCBs from initial schematic generation to final production using Altium.
- Used circuit analysis techniques to construct circuit boards used for testing parts in production.
- Integrated ESD protection into PCB designs, developed USB-C power delivery systems, integrating IC controllers for voltage/current regulation onto board.
- Contributed eight complex Altium footprints/3D models to workspace
- Utilized SolidWorks to create fixtures for PCB testing and assembly.

### Edge Autonomy - San Luis Obispo

June 2023 - September 2023

#### Electrical Engineering Intern

- Diagnosed and resolved issues with overheating PCBs, including component replacement and validation.
  - Initiated the assembly of a ground-based test rig for aircraft system integration.
  - Conducted root-cause analysis on faulty batteries and helped implement corrective measures.
  - Drafted and executed testing procedures for coaxial cables using a spectrum analyzer.
  - Played a key role in resolving non-conformance issues related to air data pods.
  - Gained experience with JIRA for tracking project progress and managing tasks within a team.
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## EDUCATION & COURSEWORK

### Bachelor of Science - *Electrical Engineering*

Fall 2021 - Present

California Polytechnic State University

*San Luis Obispo*

- Electric Circuits I-III
- Energy Conversion
- Electromagnetics
- Continuous/Discrete Time Signals & Systems
- Probability & Random Processes
- Electromagnetic Fields & Transmission
- Physics I-III, Modern Physics
- Data Structures
- Object Oriented Programming
- Digital Design and Assembly Programming
- Semiconductor Device Electronics
- Microprocessor Sys Design

## EXTRACURRICULAR & CERTS

### Projects Manager, Cal Poly Amateur Radio Club

Managed and oversaw projects for the HAM radio club. Attended bi-weekly meetings as an officer.

### Cal Poly Orchestra / San Luis Chamber Orchestra

Officer, violist

### IPC ESD Protection Certified

ESD Control for Electronics Manufacturing