

Jordan Reichhardt

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Education

California Polytechnic State University — Electrical Engineering **San Luis Obispo, CA**
Bachelor of Science September 2021 - December 2025

- **GPA:** 3.60

Master of Science January - December 2026 expected

- **GPA:** 3.81

Research & Projects

Thesis: ML predictions of Coastal Chlorophyll and Turbidity Levels **San Luis Obispo, CA**
California Polytechnic State University, San Luis Obispo August 2025 - Present

- Developing ML models to estimate coastal chlorophyll and turbidity around the Cal Poly Pier using XGboost, Random Forrest, and Neural Network Models
- Combining Sentinel-2 and Sentinel-3 datasets as base estimates and training models using environmental dataset spanning 5 years with 30 minute temporal resolution (50,000+ samples)

Senior Project: Voltage Source Converter (VSC) Control System **San Luis Obispo, CA**
California Polytechnic State University, San Luis Obispo January 2025 - December 2025

- Designed a real time control system for a VSC within MATLAB/Simulink implementing grid synchronization via PLLs, fault detection, dq-axis transforms, and cascaded V/I control loops
- Analyzed the harmonics and their distortion from the system's output PWM and transients
- Designed a PCB to interface the control system with a hardware power electronics

Tidal Gauge Internship **San Luis Obispo, CA**
California Polytechnic State University, San Luis Obispo November 2022 - December 2023

- Collaborate with a 10-member team to build, install, and analyze tidal sensors
- Designed PCBs using Altium, Fusion 360, LT-spice and soldered/breadboarded
- C programming integration for STM32 cubeIDE microcontrollers with peripherals

Work Experience

Distribution Planning and Protection Internship **San Luis Obispo, CA**
PG&E December 2025 - Present

- Queries large datasets using SQL Developer to analyze recloser status, track alarm states, and monitor system conditions
- Builds distribution protection settings for normal & emergency conditions, ensuring coordination

Whale Detangler Project **San Luis Obispo, CA**
California Polytechnic State University June 2025 - September 2025

- Implemented embedded Python to Arduino Pro Mini and Custom PCB for the acquisition and processing of data from ADXL363, EEPROM, power management, and line cutting circuitry
- Presented grant driven research results to the California Cetacean Society

Engineers For Exploration Internship **San Diego, CA**
University of California, San Diego June 2023 - September 2023

- Designed a surfboard fin sensor system to measure wave height, temperature, and salinity
- Designed schematics and PCBs using Altium, integrated SoM with external sensors
- Developed C scripts to connect ESP32 to sensors for real-time data acquisition and processing

SKILLS

- Software: Python, C, MATLAB, JavaScript, System Verilog, VHDL, STM32 and ESP32 Embedded Software
- Controls and Hardware design: PCB Design (Altium, Eagle, KiCad), LTspice, Fusion 360 CAD, Simulink, FPGA design
- Laboratory: Oscilloscope, VNA, Signal Generator, Soldering, PCB assembly/testing