

Daniel Jabro

ELECTRICAL ENGINEERING · SEMICONDUCTORS & OPTOELECTRONICS

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TECHNICAL SKILLS

Electronics & hardware

PCB repair, soldering, component replacement, multimeters, power supplies, sensors, motor drivers, continuity testing, signal tracing, fault isolation

Fabrication & tools

CNC machines, 3D printing, plotters, mechanical assembly, CAD, hand tools, diagnostic equipment

Power systems

LiFePO4 batteries, solar charge controllers, inverters, high-current wiring, DC power systems, battery energy storage

Embedded & software

Microcontrollers, feedback control, C++, Java, HTML, CSS, technical drawings, system documentation

EXPERIENCE

Rotation Engineer Intern — Amentum

Vandenberg Space Force Base, CA · June–August 2026

- Supported engineering and technical operations for range-support systems, including electronics troubleshooting, equipment testing, device configuration, and system documentation.
- Worked with radar, telemetry, and electronics-related systems to verify function, investigate technical issues, and support reliable operation of mission-support equipment.
- Assisted with technical drawings, system upgrades, supplier coordination, and internal web-based tools using HTML, CSS, and Java.

Machinist — AudioLux

Santee, CA · June 2023–September 2025

- Operated and maintained CNC machines, 3D printers, plotters, woodworking equipment, and precision instruments used for fabrication and customization.
- Troubleshoot electrical and mechanical issues involving wiring, sensors, motor components, and power systems; supported automotive audio/electrical installation and custom fabrication.

Retail Sales Associate — JCPenney

Escondido, CA · December 2021–December 2022

- Provided customer support while managing POS transactions, returns, inventory, order fulfillment, restocking, and merchandise displays.

EDUCATION

University of California, Irvine

B.S. Electrical Engineering · Semiconductors & Optoelectronics · Expected June 2027

Palomar College

A.S. Engineering · A.S. Mathematics · A.S. University Studies: Scientific Studies · May 2025

Selected engineering projects

SYSTEMS BUILT, REPAIRED, AND IN DEVELOPMENT

SELECTED ENGINEERING PROJECTS

96 V Electric Vehicle Conversion

Power systems · Motor control · Mechanical integration

- Integrated a 96 V DC motor into a modified golf-cart platform; installed high-current wiring, controllers, safety systems, and a custom-machined drivetrain; debugged power delivery and motor behavior under load.

Off-Grid Solar Fabrication Lab

Solar · LiFePO₄ energy storage · DC power

- Built a solar and LiFePO₄ battery system for 3D printers and shop tools; integrated the charge controller, inverter, and storage while monitoring power flow and load use.

Electromechanical Solar Tracker

Sensors · Feedback control · Motor control

- Built a motorized solar-panel tracker using light-sensor data and programmed control logic to adjust panel position.

PCB-Level Electronics Repair

Soldering · Fault isolation · Signal tracing

- Diagnosed a shorted mini-PC motherboard, replaced components with chip-level soldering, and verified electrical signals after repair.

BattleBot Design & Fabrication — In progress

CAD · 3D printing · Motor drivers

- Designing a combat-robotics prototype and fabricating structural and electronic components while integrating motors, drivers, and power systems.

Bicycle-Driven Alternator Generator

Energy conversion · Rectification · Power delivery

- Built a bicycle-driven alternator generator and designed the rectification and power-delivery circuitry.

SELECTED COMPLETED COURSEWORK

Electronics

Electronics I and laboratory; electrical engineering analysis; electrical network analysis and laboratory

Programming

C++ and object-oriented programming; data structures

Signals & digital systems

Discrete-time signals and systems; introduction to digital systems

Mathematics & physics

Calculus III; differential equations; linear algebra; calculus-based physics

ENGINEERING DIRECTION

Completing a B.S. in Electrical Engineering with a focus in semiconductors and optoelectronics, while continuing to develop practical depth in hardware troubleshooting, instrumentation, embedded control, and energy systems.