ELI FOERST

480-760-5094
elifoerst1@gmail.com

www.linkedin.com/in/efoerst

TECHNICAL SKILLS

Design & Modeling —
Altium Designer, AutoCAD, Microsoft Excel, Vernier Graphical Analysis

Software — C++, Python, MATLAB, MultiSim

Hardware — Soldering - *Through-hole & SMT* Circuit Design - *Breadboarding, Technical Diagram Analysis*

OTHER SKILLS

Spanish — Intermediate reading, writing, & speaking.

Leadership — Club management, workplace organization & guidance.

Distinctions — Dean's Honor Roll ('22), International Baccalaureate Diploma ('21)

URLs

Digital Portfolio —
https://elifoerst.com/

SUMMARY

Undergraduate Electrical Engineering major with a variety of experience in a team environment. Projects involve printed circuit board design, schematic design, and microcontroller software. Seeking full-time internship opportunities in electrical engineering, aerospace engineering, and systems engineering.

EXPERIENCE

Electrical Engineering Project Lead | Institute of Electrical and Electronics Engineers
April 2022 - PRESENT
- Collaborated with co-lead to design and integrate applicable lectures, workshops, and projects for 100 incoming Electrical Engineers.
- Designed new workshop curriculum to teach members introductory EAGLE Design, soldering techniques, and debugging processes.
- Coordinated events and project info sessions with lab management.

Stockroom Supervisor | UCLA Samueli School of Engineering & Sciences
September 2021 - PRESENT
- Coordinated scheduling, distribution, training, and communications among assistants and lab associates whilst maintaining stock of over 10,000 electrical components.
- Resolved complications with lab components and allotted time for product repair: Included repair of digital multimeters via soldering and wire repair.

Electrical Engineering Intern | NASA Jet Propulsion Laboratory (JPL)
July 2022 - September 2022
- Worked with Altium Design software for development in safety, accuracy, and automation of safe to mate for aerospace hardware.
- Implemented Kelvin Resistance models for continuity, voltage, and impedance measurements across hardware.
- Analyzed completed 124-pin break-out-box technical diagrams for hardware implementation in printed circuit board design.
- Conducted trade studies to evaluate component performance including wireless communication, voltage regulation, and signal multiplexing.
- Developed multiplexer switch identifier algorithms utilizing extended voltage range and pull-ups integrated into an Excel driven user interface.
- Designed and developed a comprehensible printed circuit board for reuse across JPL provided break-out-boxes and operating software for model-based control.
- Documented designs and progress with written reports, presentations, and schematic drawings to be shared with management and select clientele.
- Implemented switch operation using SPI communication using C/C++ while connecting board to host device via Bluetooth Classic and Python.

Electrical Engineering Competitions | Institute of Electrical and Electronics Engineers
Electrical Engineering Project Capstone — *OPS Project Membership 2021-2022*
- Collaborated with a team of engineers to calibrate and design a hand-following car using PID control, IC Motor Operation, and ultrasonic sensing.

Electrical Engineering Hacker — *IDEA HACKS (Finalist '22)*
- Developed and hand-soldered a UV light-tracking outerwear attachment using C/C++ with constraints of volume reduction, and global integration .

EDUCATION

University of California, Los Angeles (UCLA) — BSEE Candidate Class of 2025
Relevant Coursework: Programming, Linear Algebra, Applications and Differential Equations, Introductory Circuit Analysis, Mechanics & Magnetism
By Summer 2023: Circuit Theory, Signal Analysis, Digital Signal Processing