ELI FOERST

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www.linkedin.com/in/efoerst

TECHNICAL SKILLS

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

Software — MATLAB, C++, Python, Arduino IDE, MultiSim

Hardware — Soldering - Through-hole & surface-mount, Circuit Design, Breadboarding

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 part-time Fall/Spring internship, full-time summer internship, and research opportunities in electrical engineering, aerospace engineering, and systems engineering.

EDUCATION

University of California, Los Angeles (UCLA) — BSEE Candidate Class of 2025

Relevant Coursework: Programming, Linear Algebra, Applications and Differential Equations, Engineering, Mechanics & Magnetism

PROJECTS & EXPERIENCE

NASA Jet Propulsion Laboratory (JPL) — July 2022 - September 2022

Electrical Engineering Intern — *Automated Safe-To-Mate Tester*

- Worked with Altium Design software for development in safety, accuracy, and automation of safe to mate for aerospace hardware.
- Implemented Kelvin Resistance models for application towards flight hardware.
- Analyzed completed 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.
- Additional skills acquired: decoupling, SPI controlled interface technologies, and Bluetooth connectivity.

Institute of Electrical & Electronics Engineers — September 2021 - PRESENT

Electrical Engineering Project Lead — *OPS*

- Collaborated with co-lead to design and integrate applicable lectures, workshops, and projects for 100 incoming Electrical Engineers.
- Coordinated events and project info sessions with lab management.

Electrical Engineering Project Capstone — *OPS Project Membership 2021*

- Collaborated with a team of engineers to design a hand-following car as project capstone. *Included skills:* PID control, motor and sensor calibration.

Electrical Engineering Hacker — *IDEA HACKS (Finalist '22)*

- Monitored outdoor complications to develop solution to UV light exposure.
- Designed small outerwear attachment for outdoorsmen with constraints of volume reduction, and global integration.

Stockroom Supervisor, UCLA Samueli School of Engineering & Sciences — September 2021 - PRESENT

- Coordinated scheduling, distribution, and communications among assistants and lab associates whilst maintaining stock of over 1,000 electrical components.
- Resolved complications with lab components and allotted time for product repair: Included repair of Multimeters via soldering and wire repair.

Service Industry Cashier; AZ — December 2020 - April 2022

Nekter Juice Bar, Abercrombie & Fitch, & Pei Wei Asian Kitchen

- Trained four new hires while maintaining product quality assurance.