BAILUN WU, EIT

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Education

University of California, Los Angeles (UCLA) **Los Angeles, CA**

---*B.S., Electrical Engineering* (Sept 2022 - Dec 2024)

- GPA: 3.53
- Honor: Dean's List (Good Standing)

Certifications

Engineering in Training (EIT) Certification **September 2024**

---Issued by the Board for Professional Engineers, Land Surveyors, and Geologists, License #**182862**

Technical Skills

Programming Language: Matlab (Simulink); Python; Embedded C/C++; Verilog; Revit; LabView; HTML; Github; CSS
Prototyping: Experienced with Arduino; Oscilloscope; Function Generator; Multimeter; Power Supplies; Power Analyzer; Microcontroller
Software: Advanced in AutoCAD Electrical; LTspice; EAGLE; PowerWorld; Microsoft Excel, Office & PowerPoint; Autodesk Inventor
Course: Principles of Power System; Advanced Circuit Analysis (Transistors and RLC circuit Analysis); System and Signal; Principles of Feedback Control; Electromagnetism; Data Structures and Algorithms; Machine Learning; Principles of Semiconductor design; Principles of Nanoelectronics; Power Electronics

Work Experience

UVFAB Systems, Inc. **Remote, United States**

---Electrical Engineering Intern (Mar 2024 -Aug 2024)

- Cable & Harness designing for AC modules/Capital Equipment / Sensors / Temp Controllers, digital timers, etc.
- Design electrical/electronic engineering assemblies, layouts/schematics, and detailed drawings
- Preparing engineering specification documents, Test specifications, and interface with other teams
- Coordinate the procurement and assembly of electrical/electronic components/equipment
- Perform engineering analysis on component failures and interact with vendors for resolution

Engineering Projects

Solar Powered Vehicle **Los Angeles, CA**

---UCLA IEEE Project (Oct 2023 - Aug 2024)

- Power system optimization with transient circuit analysis of the embedded circuit components (Passive circuit components).
- Designed and tested custom PCBs for solar energy harvesting and power management.
- Implemented signal processing techniques to enhance control system performance and stability.
- Conducted power factor correction analysis to improve system efficiency.

Micromouse **Los Angeles, CA**

---UCLA IEEE Project (Oct 2022 - Sep 2023)

- Designed and fabricated custom PCBs, ensuring integration of all electrical components through bench testing with oscilloscopes, function generators, and logic analyzers.
- Developed and debugged microcontroller-based Flood Fill navigation algorithms using real-time sensor data for efficient maze-solving.
- Validated circuit performance using LTspice simulations before hardware implementation.

Electrocardiogram **Los Angeles, CA**

--- ENGR 96E (Jan 2023 - Mar 2023)

- Designed circuit boards for ECG measurement with low-noise signal conditioning for accuracy.
- Developed firmware for microcontrollers to process and display ECG signals on a computer interface.
- Simulated analog filter designs using LTspice to optimize signal clarity and minimize artifacts.

Path Following Robot Car **Los Angeles, CA**

---ECE3 Project (Oct 2022 - Dec 2022)

- Implemented PID control algorithms to enable a robotic car to autonomously navigate a 3.4-meter track, achieving an 8.3-second completion time.
- Used phototransistors for real-time path detection and oscilloscopes to verify sensor signal response and control loop timing.
- Tested and tuned motor control signals using function generators and digital multimeters to ensure efficient operation.