Julia Wong

✉ juliaewong@gmail.com
in linkedin.com/in/juliaewong
☎ +1 (714) 300-3112

Objective

Motivated Electrical Engineering student with experience in robotics, neural networks, and industrial automation. Skilled in hardware design and data analysis, eager to contribute innovative solutions to dynamic engineering teams.

Experience

Undergraduate Research Assistant　　　　　　　　　　　　　　Santa Cruz, California, USA
University of California – Santa Cruz　　　　　　　　　　　　　　　　　　March 2024 – Present
- Extract biomedical signal features to enhance diagnostic capabilities, focusing on cardiovascular health.
- Optimize Spiking Neural Network (SNN) models with CNN-SNN conversion and threshold-balancing algorithms for computational efficiency in real-time applications.
- Design and evaluate neural network architectures with PyTorch for image and signal classification.

Startup Consultant　　　　　　　　　　　　　　　　　　　　Santa Cruz, California, USA
Pinpoint AVL LLC　　　　　　　　　　　　　　　　　　　　September 2022 – Present
- Implement custom headsigns, Automated Passenger Counters (APC), and Automatic Vehicle Location (AVL) systems, improving operational accuracy.
- Engineer hardware enclosures with SolidWorks, enhancing durability and functionality.
- Design circuit boards to ensure reliability and compliance with technical specifications.
- Analyze vehicle-tracking data via GeoJSON to optimize routing and reduce downtime.

Undergraduate Electrical Engineering Intern　　　　　　　　　　　　　Mason, Ohio, USA
Honeywell International Inc.　　　　　　　　　　　　　　　　June 2024 – December 2024
- Researched product lines to identify replacement parts for legacy components and improve life cycles.
- Developed diagnostic test kits, reducing Divert Control Module (DCM) evaluation time by 83%.
- Utilized oscilloscopes and specialized equipment to assess switch timing and document precise data.
- Addressed client system issues through technical site visits, improving operations.

Administrator and Project Coordinator　　　　　　　　　　　　Santa Cruz, California, USA
Slugbotics　　　　　　　　　　　　　　　　　　　　　September 2022 – June 2024
- Coordinated events by collaborating with faculty, fostering student engagement and team visibility.
- Constructed and optimized the combat robot 'Gigabyte' for the BattleBots World Championship VII, ensuring adherence to competition standards and enhancing performance.

Education

B.S. Electrical Engineering　　　　　　　Santa Cruz, California, USA
University of California – Santa Cruz　　　　　　　Expected June 2026

Pembroke Summer Programme　　　　　　Cambridge, England, UK
University of Cambridge　　　　　　　July 2023 – August 2023

Relevant Coursework

- Analog Electronics
- Graduate Mechatronics
- Logic Design
- Microcontroller System Design
- Signals and Systems

Skills

- **Software Tools**: SolidWorks, Inventor, Fusion 360, AutoCAD, Tableau, LTspice
- **Programming Languages**: Python, MATLAB, C, C++, System Verilog, HTML
- **Hard Skills**: Data Analysis, Embedded Systems, Machine Learning
- **Soft Skills**: Adaptability, Creativity, Curiosity, Patience, Relationship Building

Affiliations

- Society of Women Engineers
- Institute of Electrical and Electronics Engineers
- IEEE Women in Engineering