Phillip Lewis Wang

US Citizen | 310-503-0928 | phillipwang28@berkeley.edu | linkedin.com/in/phillip-wang-a63623101/

EDUCATION

University of California, Berkeley **Aug 2024 - May 2026**
- B.S. in Electrical Engineering & Computer Science, ***Regents' and Chancellor's Scholar*** **3.83 GPA**

University of California, Irvine **Sept 2022 - Jun 2024**
- B.S. in Electrical Engineering | *Specialization in Semiconductors and Optoelectronics* **3.83 GPA**

Relevant Coursework: Engineering Probability, Discrete Time Signals and Systems, Network Analysis, Advanced C Programming, Structure and Interpretation of Computer Programs, Data Structures and Algorithms

PROJECT EXPERIENCE

Avionics Engineer - *UCI Rocket Project (Solids)* **Jul 2023 - Jun 2024**
- Developed and tested RF circuits and systems needed to launch at 10,000ft, recover rocket and record telemetry data
  - Designed PCB for a central control unit that integrated sensors (accelerometer, barometer, temperature, magnetometer), microcontroller, MOSFETs, and electric matches to deploy drogue and main parachutes.
  - Optimized signal integrity by minimizing trace intersections and reducing noise coupling

E-SONIC (Engineering Symphonic Orchestra New Instrument Competition) **Nov 2023 - Jun 2024**
- Fabricated and coded an EEG-controlled synthesizer that detects specific brainwave thresholds to evoke music chords using an OpenBCI repository. Received $2,000 funding in college-wide competition.

Chem-E Car - *Electrical Lead* **Sep 2022 - Jun 2024**
- Won **1st place** in Western Regionals Competition April 2024 out of all California and Arizona colleges
- Led electrical sub-team to fabricate an embedded system that connected chemical and mechanical components. Powered by a self-created lead-acid battery that detected iodine clock reaction to stop the car.
  - Utilized Light Dependent Resistors, MOSFETs, H-Bridge Integrated Circuit, Servos, Linear Actuator, Motors

Lee Nano-Optics Lab (UCI) - *Research Assistant* **Dec 2022 - Jun 2024**
- Applied Ansys Lumerical software for advanced optical simulations, modeling light-matter interactions
- Designed and manufactured an aluminum 3D CAD model of an optical fiber holder using SOLIDWORKS
- Operated and programmed a fusion splicer to modify optical fiber power output, developing a deep understanding of hands-on equipment operation and troubleshooting hardware performance issues.

Sustainable Autonomous Underwater Vehicle Charging System - *Electrical Lead* **Nov 2022 - Mar 2023**
- Fabricated an electrical generator using a stepper motor, capacitors and full-bridge rectifiers

LEADERSHIP & WORK EXPERIENCE

Vice President, Secretary, OPS (Open Project Space) Member — *IEEE@UCI* **Apr 2023 - Jun 2024**
- *Secretary* — Facilitate weekly meetings, communicate with faculty and IEEE members, expand organization's presence
- *OPS* — Completed projects such as Weather Station, 555 Timer Piano, and "iPoduino" using integrated circuits, breadboarding, soldering, microcontrollers, C++, PCB design, and serial communication protocols (SPI, I2C, UART).

Concertmaster (Violinist) — *California All-State Honor Orchestra, UCI Symphony Orchestra* **Dec 2020 - Jun 2023**
- Directed orchestra during rehearsals and concerts, communicated musical ideas between conductor and orchestra
- Created bowings for string sections, ensuring consistency and alignment across the orchestra's performance.

Server — *Bashi, Terranea Resort* **Jun 2022 - Sep 2022**

AWARDS

- Regents' and Chancellor's Scholarship, Dean's Honor List, 1st Place Chem-E Car Western Regionals 2024, Presidential Volunteer Service Award, National School Orchestra Award

AFFILIATIONS

- Eta Kappa Nu (Mu Chapter), IEEE, AIAA, UCI Chem-E Car, UCI Rocket Project, Lee Nano-Optics Research Lab, UCB Symphony Orchestra, UCI Symphonic Orchestra (Concertmaster), UCI Club Volleyball

SKILLS

Circuit Design, Digital Logic Design, Digital Signal Processing, RF Circuits, Avionics, Microcontrollers, Embedded Systems
Equipment Experience: Oscilloscope, Spectrum Analyzer, Signal Generator, Soldering, Power Supply, Multimeter
Programming Languages: C, C++, Java, Python, VHDL, Verilog, Scheme, SQL, Git
Simulation/Design: LTSpice, Ansys Lumerical, CAD (SOLIDWORKS), PCBA Design (KiCad, Altium), Vivado