

Jonathan Lin

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EDUCATION

University of California, San Diego 3.96 GPA

Bachelors of Science, Electrical Engineering

San Diego, California

2024-2028

Palos Verdes Peninsula High School | 3.95UW/4.95W GPA

Palos Verdes, California

2020-2024

RELEVANT SKILLS

Testing: Vector Network Analyzer, Oscilloscope, Spectrum Analyzer, Impedance Analyzer | **EDA Tools:** Altium, KiCAD, COMSOL, Ansys Workbench, LTSpice, Inventor, Solidworks, Onshape | **Programming:** Java, Python, C, MATLAB, Verilog | **Soft Skills:**

EXPERIENCE

Undergraduate Researcher

UCSD Wireless Communications Sensing and Networking Group (Prof. Dinesh Bharadia) La Jolla, California June 2025 - Present

- Engineered a novel baby pacifier sensor system, designing and fabricating custom eCAD PCBs using RFID ICs to enable wireless communication and data acquisition, increasing accessibility and convenience for users
- Developed and executed sensor validation/optimization testing, generating essential data (10k+ data points) with VNA, PyVISA
- Created COMSOL simulations to simulate mechanical and electrical behavior, developing system for future sensor development
- Presented the project's design, testing methodology, and optimization results at the annual UCSD Summer Research Conference.

Instructional Assistant (Tutor/Reader) - ECE 15 (Intro to C)

UCSD La Jolla, California January 2026 - Present

- Mentoring 200+ students weekly with office hours/discussion sessions to improve student comprehension & programming skills
- Responsible for grading exams (midterms and finals) and communicating learning standards to students
- Improving communication skills and problem solving by guiding students through challenging programming assignments

Director of Events

UCSD Eta Kappa Nu La Jolla, California January 2025 - Present

- Organized and led various technical and social events, averaging over 30 attendees each event with a peak of 100 attendees
- Provided space for students to learn technical skills (arduino, sensors, programming), review for classes, and more
- Responsible for various documentation and paperwork, including TAP forms, event reviews, AS funding requests

Imaging System Research Intern

UCLA Digital Microwave Lab Los Angeles, California June 2023 - August 2023

- Conducted research and development on an ultralow frequency Magnetic Resonance Imaging (MRI) prototype.
- Utilized CAD software to design and prototype MRI structure components, reducing design iteration time by over 70%.
- Operated advanced equipment, including VNA, Impedance Analyzer, to measure and calibrate 6 iterations of MRI components

Subsystem Lead/Mechanical Design Engineer

FIRST Robotics Competition Team 2637 Palos Verdes, California August 2021 - June 2024

- Led the prototyping, design, and assembly of a gamepiece intake subsystem achieving a pick-up rate of over 95% across 2 years.
- Trained and mentored over 10 team members in CAD design, manufacturing techniques, and mechanical assembly.
- Devised and implemented gear ratio analysis, stress analysis, and motor selection processes to optimize subsystem performance.

PROJECTS

Macropad

January 2025-June 2025

- Developed custom Macropad with plug and play functionality for built in keyboard shortcuts using buttons, screens with I2C
- Developed audio control using a rotary encoder, microcontrollers (Arduino, ESP32); programmed shortcuts using QT Designer

Line Following Robot (ECE 5 - Intro to EE)

February 2025 - March 2025

- Developed, designed, and programmed line following robot using CAD (Onshape), Arduino
- Utilized PID control, photoresistors, potentiometers, soldering, wiring
- Placed 2/12 in class-wide competition

RELEVANT COURSEWORK

Signals and Systems, Components and Circuits, Digital Design, Analog Design, C Programming, Linear Algebra, Differential Equations, Linear System Fundamentals (Upcoming), Linear Electronic Systems (Upcoming), Electromagnetics (Upcoming)