Andrew (Kuan Ting) Liu

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EDUCATION

University of California - Irvine Irvine, CA
B.S. in Electrical Engineering & Computer Engineering Expected June 2025
Cumulative GPA: 3.97/4.0; Dean's Honors List 2021-Present; Tau Beta Pi Honors Society Member
Relevant Coursework: Network Analysis, Electronics, Discrete-Time Signals and Systems, Engineering Probability

EXPERIENCE

UCI Solar Car (ZotSun) Irvine, CA
UCI Solar Car Electrical Engineer Sep 2022 – Present

- Collaborated with 30+ members to design and manufacture a solar-powered vehicle for the American Solar Challenge.
- Led a group of 4 subteam members researching and developing skills and methods in soldering solar cells, cell encapsulation, and designing panel mounting and aero body.
- Researched sensors and telemetry and created integration plans using the CAN bus protocol for data collection.

Taiwan Semiconductor Manufacturing Company (TSMC) Hsinchu City, Taiwan
DevOps IT Engineer Intern July 2022 – Sep 2022

- Thrived in a fast-paced environment and maintained effective communication in collaboration with a team of 6 to design and create a mobile form application to reduce use of physical paper forms.
- Developed frontend UI/UX and features using Flutter framework and Figma.
- Knowledgeable regarding CI/CD procedure in Azure DevOps and deploying application into production.

UCI Housing – Middle Earth Irvine, CA
Middle Earth Housing Attendant August 2021 – Jun 2022

- Accumulated over 72 hours of customer service, administrative, managerial, and leadership training.
- Assisted team in successfully supporting 2000+ students during move-in day.
- Processed over 1000 resident packages and maintained customer satisfaction.

UNIVERSITY PROJECTS

Network Analysis Laboratory Jan 2023 – June 2023

- Designed various filters using lumped components (capacitors and inductors) and operational amplifiers.
- Automated bode plot measurements using Python by sweeping frequencies on the function generator and oscilloscope.

Online Poker Game in C May 2023 – June 2023

- Developed online poker game with complex GUI that supports up to 6 players in real time.
- Created TCP/IP communication and sockets between machines to create a centralized server to run the game.

Chess Program in C Mar 2023 – May 2023

- Developed chess program using C and GTK 2.0 in a team of 5, leveraged structure types and memory allocation techniques.
- Implemented advanced chess algorithm, including Minimax with Alpha-Beta pruning to create a strong AI opponent.
- Designed and implemented a simple GUI using GTK 2.0, providing intuitive controls and real-time feedback.

Autonomous Rover Jan 2022 – Mar 2022

- Collaborated with 6 group members to design and manufacture a functional autonomous rover with SolidWorks, soldering, 3D printing, laser cutting, Arduino, and PixyCam 2.0 for machine vision.
- Administered designing, connection, and testing rover electrical system and program using TinkerCAD and Arduino, mounting electronics, and assembling.

SKILLS

Programming: Advanced in Python, C, VHDL, Assembly; Proficient in MATLAB, Dart, HTML/CSS, JavaScript
Software: Git, GitHub, Xilinx Vivado, TinkerCAD, LT Spice, SolidWorks, KiCAD, Figma, MS Office
Machines: Oscilloscope, Function Generator, Digital Multimeter, 3D printing, Laser cutting, Soldering
Languages: Fluent in English, Mandarin