Fong-Yu Lin

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EDUCATION

University of California San Diego

San Diego, CA

 $Bachelor\ in\ Computer\ Science$

May 2026 (exp.)

Experience

Computer Vision Research

September 2024 - Present

La Jolla, CA

UC San Diego - ERSP Program

- Contributed to making SceneProgLLM better by adding advanced APIs (i.e., Anthropic, Ollama) and improving supporting local images for scene rendering pipelines.
- Developed prompts to evaluate the impact of different ceiling light positions on 3D scene illumination, leveraging LLMs to generate scored image outputs with detailed reasoning across various quality metrics.
- Worked with team members in designing domain-specific languages (DSLs) for scene synthesis in providing structured interactivity for LLM and 3D databases like 3DFront.

Software Engineering Intern (AI Team)

January 2025 - Present

Swing Phi LLC

Remote

- Engineered a political data analysis model by integrating 7 different APIs and government databases, enabling real-time tracking of legislative actions' impact on market movements.
- Developed an automated data aggregation system by connecting to Senate Lobby Disclosure database and Financial Disclosure portals, streamlining the monitoring of political trading activities.
- Created a comprehensive tracking solution by implementing real-time news and social media analysis, producing actionable insights on legislative influence on financial markets.

Software Engineering Fellow

July 2024 - September 2024

Headstarter AI

San Francisco, CA

- Developed 4 AI projects and a capstone over a 7-week fellowship, and also creating a project that is expected to get +1000 waitlist sign-ups.
- Improved teamwork and collaboration skills by working with 3 peers, resulting in 5 successful project completions.
- Conducted 15+ hours of interview preparation and personal branding sessions.
- Translated theoretical knowledge into practical solutions by solving 4 complex software engineering challenges, enhancing personal problem solving skills.

Mobile Application Development Intern

June 2023 - August 2023

Frugal Innovation Hub

Santa Clara, CA

- Developed a mobile application using Flutter, benefiting 12+ individuals navigating English as a second language.
- Implemented real-time language translation, reducing language barriers by 40%.
- Integrated visual aids for quick information comprehension, improving user satisfaction by 25%.

Projects

NewLedger | Android Studio, Flutter, Swift, Dart, Hive (90 hours)

December 2024 - January 2025

- Engineered a cross-platform financial management application using Flutter and Firebase, implementing real-time expense tracking and analytics for seamless synchronization across iOS and Android devices
- Integrated ML Kit for receipt scanning functionality by developing custom OCR algorithms, enabling automated expense entry and reducing manual data input time by 70%
- Developed an intuitive expense splitting system by implementing collaborative features and real-time updates, enabling efficient cost sharing among multiple users within friend groups

Joystick Control Car | 3D Printing, Arduino, Circuits (30 hours)

September 2023 - November 2023

- As a vice president in the IEEE club, I led 14 active members to wire circuits and soldering, install electrical components on a 3D printed car model, demonstrating leadership and technical skills.
- Presented the control car at Club Rush and Career Fair at Ohlone College, attracting 9 new club members.

TECHNICAL SKILLS

Languages: C/C++, Python, Arduino, JavaScript, HTML, CSS, Dart

Frameworks: NodeJS, React, NextJS, Flutter, Docker

Developer Tools: Git, GitHub, Firebase, Visual Studio Code, Xcode, Figma