William Jiang

Los Angeles, California

🌐 willjianger9.github.io | 📞 (437) 366-3626 | ✉ jiangwil@g.ucla.edu | 🔗 Williamjiang9 | ⊙ Willjianger9

EDUCATION

University of California, Los Angeles   *Expected Graduation Date: June 2028*
Bachelor of Science in Computer Science and Engineering   *GPA: 3.9*
- Relevant Coursework: Intro to C++ Programming, Data Structures and Algorithms, Software Construction

EXPERIENCE

Fullstack Developer   September 2024 - December 2024
Creative Labs   *Los Angeles, CA*
- Developed the **SwipeSmart iOS app** to help users **maximize** cashback rewards by tracking credit card offers.
- Redesigned the **data structure** for **credit card reward categories** to support **colors and icons**.
- Improved development with **continuous integration** to resolve bugs and **enhance app performance**.
- Integrated designer-created views into the application for a **seamless, visually cohesive user experience**.

Lead Website Developer   December 2024 - Present
UCLA Robot Intelligence Laboratory   *Los Angeles, CA*
- Designed and launched the **official website** with an responsive interface to showcase research projects.
- Leveraged **HTML**, **CSS**, and **JavaScript** to create dynamic, cross-browser compatible web pages.
- Integrated version control using **Git** and created deployment workflows to streamline updates and maintenance.

RESEARCH

Undergraduate Researcher   September 2024 – Present
UCLA Robot Intelligence Laboratory   *Los Angeles, CA*
- Extracted 3D gaze coordinates from Meta's **Aria glasses** to track movements from a **mobile** ego perspective.
- Engineered a **homography-based solution** to align gaze data to and a **robot-mounted camera**.
- Improved robot **policy learning** by incorporating **human visual attention** to adapt behavior during tasks.

Undergraduate Research Intern   December 2024 – Present
Interconnected & Integrated Bioelectronics Laboratory   *Los Angeles, CA*
- Contributed to development of a **ferrobotic platform** for **automated viral detection** in clinical samples.
- Developed **machine learning models** to predict diseases from biomarkers using colorimetric RT-LAMP assays.
- Evaluated machine learning models to determine **performance** in **multi-class disease classification.**

Computer Vision Research Assistant   July 2024 – August 2024
University of Waterloo, Vision and Image Processing Laboratory   *Waterloo, ON*
- Designed a **YOLO**-based object detection and tracking system to track player movements with **97% accuracy**.
- Developed an **extreme gradient boosting** algorithm using **150+** videos to evaluate performance evaluation.
- Utilized **homography techniques** to map player positions and warp visualized data to original footage.
- Integrated **SAM2** to automate player mask creation to create precise overlay of masks on visualized data.

PROJECTS

Plant Portal   February 2025
Hack for Humanity | React/Vite, Three.js, TailwindCSS, MongoDB, JWT, Gemini API   *Santa Clara, CA*
- Built **full-stack platform** that transforms user-uploaded plant images into a **3D garden** using **Google Gemini**.
- Engineered an **image processing pipeline** that identifies plant species and key information from photos.
- Developed an **3D visualization module** that maps real-world planting efforts into a virtual garden environment.
- Designed a secure **backend architecture** to manage **user data**, **plant profiles**, and community interactions.

Unity Nonprofits   January 2025
IrvineHacks, Best Use of Melissa | Next.js, TypeScript, FastAPI, AgentQL, Playwright, nGrok   *Irvine, CA*
- Developed a platform connecting users to local nonprofits using **zip code** and **interests**, to boost social welfare.
- Created our API from Melissa's dataset to **search** and **filter** for relevant nonprofit data with contact information.
- Secured backend connectivity via **nGrok** to ensure reliable data exchange during development.

TECHNICAL SKILLS

Languages: C++, Python, Java, JS, TS, Swift, HTML/CSS, SQL | **Frameworks**: React, Next.js, Node.js, Express.js
Dev Tools: Git, VSCode, Docker | **Libraries**: PyTorch, TensorFlow, OpenCV, XGBoost | **Design**: Figma, Photoshop