

# William Jiang

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## EDUCATION

### University of California, Los Angeles

*Expected Graduation Date: June 2028*

*Bachelor of Science in Computer Science and Engineering*

- Recipient of Medtronic and Ontario Hockey Federation Scholarship
- Relevant Coursework: Artificial Intelligence Applications in Robotics, Programming in C++, Data Structures and Algorithms, Physics Mechanics, Multivariable Calculus
- GPA: 4.0

## EXPERIENCE

### 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.
- Engineering a **homography-based solution** to align gaze data to and a **robot-mounted camera**.
- Improving robot **policy learning** by incorporating **human visual attention** to adapt behavior during tasks.

### Fullstack Developer

September 2024 - Present

*Creative Labs*

*Los Angeles, CA*

- Developed the **SwipeSmart** iOS app to help users **maximize** cashback rewards by tracking credit card offers.
- Created a **location-based** widget displaying credit card rewards using users' **proximity** to relevant destinations.
- 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**.

### Computer Vision Research Assistant

July 2024 – August 2024

*University of Waterloo*

*Waterloo, ON*

- Annotated **100+** hockey games of footage to develop a robust dataset for training machine learning models.
- Designed a **YOLO-based** object detection and tracking system to track player movements with **99% 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.

### Multimedia Designer

April 2021 – October 2023

*Youtube*

*Remote*

- Produced and edited **40+ videos**, achieving over **140,000 views** on YouTube by creating edits and tutorials.
- Implemented **search engine optimization** strategies, to generate over **1.2 million** video impressions
- Developed and refined video content strategies to increase **audience retention** and grew channel visibility through high-quality visual storytelling.

## PROJECTS

### Face Recognition System | *Python, TensorFlow, Keras, PyTorch*

- Engineered a high-performance face recognition system using **convolutional neural networks** with **rectified linear unit activation functions**, achieving **99% accuracy**.
- Applied **data preprocessing and augmentation techniques** to enhance performance in diverse scenarios.

### Chest Disease and Detection and Diagnosis | *Python, TensorFlow, Keras, OpenCV, NumPy, Scikit-learn*

- Developed and fine-tuned **ResNet50** models using transfer learning in **Keras** and **TensorFlow** to classify chest diseases from X-ray images.
- Utilized **data augmentation** and **hyperparameter optimization** to enhance performance.

### Large Language Model Summary Generator | *Python, LLaMA2, PyTorch, Hugging Face, LoRA, PEFT*

- Implemented different layers of Meta's **Llama 2** and used **Low-rank adaptation** and **Parameter-efficient fine-tuning** to create a summary generator and optimize its performance on low computing resources.

## TECHNICAL SKILLS

**Languages:** C++, Java, Python, JavaScript, HTML/CSS, Swift | **Design:** Figma, Adobe Illustrator, Photoshop  
**Developer Tools:** Git, VS Code | **Libraries:** PyTorch, TensorFlow, Keras, OpenCV, NumPy, Pandas, Matplotlib