Yama Jiang

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Education

University of Central Florida Orlando, FL

Bachelor of Science in Computer Science, Accelerated BS-MS *August 2026*

- **Academic Achievements:** Dean's List, President's Honor Roll
- **Relevant Coursework:** Data Structures and Algorithms, Object-Oriented Programming, Mobile Software Development, Computer Logic and Organization, Intro to Robotics, Medical Image Computing
- **Organizations:** Girls Who Code, SASE, SWE

Experience

Undergraduate Research Assistant January 2026- Present

University of Central Florida, AI & Imaging in Medicine (AIM) Research Lab *Orlando, FL*

- Researching multimodal learning by integrating whole slide pathology images with DNA methylation data, benchmarking accuracy and efficiency against single-modal approaches
- Conducting downstream task training on multiple biomedical datasets using Gigapath (whole slide image encoder) and CpGPT (DNA methylation encoder).
- Implementing checkpoint-level evaluation for embedding generation, iterating across all training epochs to identify optimal model states rather than relying on the final checkpoint.

Undergraduate Research Assistant August 2025- November 2025

University of Central Florida, Knights Scholar Research Program *Orlando, FL*

- Researching the impact of driver emotions on road safety using multimodal learning including vision large language models (VLLMs)
- Conducting research on Visual Question Answering (VQA) with Qwen LLM for driving datasets by data labeling and annotation along with analyzing how multimodal inputs can improve understanding of driver behavior and road context

Projects

NavX | *Arduino, Python*

- Co-developed an autonomous object-avoidance robot car using Arduino for motor control, sensor integration, and navigation logic
- Implemented system to identify and classify obstacles using YOLOv8, enabling intelligent path planning and adaptive avoidance
- Added a live stream view of the robot's camera, displaying real-time bounding boxes and reporting detected objects on the user interface

Vehicle Detection | *Python*

- System to identify and count vehicles in real-time video footage, including highway and surveillance camera feeds
- Utilized YOLOv8 object detection model to process video frames for accurate vehicle recognition and classification
- Implemented real-time vehicle tracking with bounding box overlays and count to visualize detected vehicles in video frames

FaceGuard | *Python*

- Built a face detection system using MediaPipe and OpenCV to anonymize faces with consistent blurring across photos, videos, and live webcam feeds
- Gained hands-on experience with facial detection, video stream handling, and real-time image processing using OpenCV

Technical Skills

Languages: HTML/CSS, Python, Java, C, C#, C++, Typescript, JavaScript
Frameworks and Libraries: Tailwind, Next.js, React, OpenCV
Tools and Technologies: Figma, Git, VSCode, Unity, Eclipse, Android Studio, IntelliJ, Arduino, Microsoft Office