Will Wei-Juen Wang

Tel: (530)564-9292 | Mail: willwang02@gmail.com

EDUCATION

University of California, Davis *Davis, CA*

Master of Science in Electrical and Computer Engineering *Sept 2024 - Jun 2026(Expected)*

- Relevant Courses: Linear Systems & Signals, Internet of Things, Practical AI, Electronic Circuits, VLSI Digital Signal Processing

Shanghai Jiao Tong University *Shanghai, China*

Bachelor of Information Engineering *Sept 2020 - Jun 2024*

- Relevant Courses: Digital Signal Processing, Principles of Communication, Data Structure, Embedded System and Interface, Machine Learning

PROJECT EXPERIECE

Team member, RoboMaster University Championship, Shanghai Jiao Tong University *Oct 2021 – Oct 2022*

- **Developed a Real-Time Vision Processing Module:** Designed and implemented a high-efficiency vision processing system on the **Jetson AGX Xavier** platform using **C++** and **OpenCV**, based on **Linux** system.
- **Implemented a YOLOv5-based Object Detection Model:** increased detection accuracy by **30%** compared to traditional method, enabling precise target tracking and positioning under competitive conditions.
- **Collaborated in Technical Problem Solving:** Worked closely with the team to overcome challenges such as varying lighting conditions, which contributed significantly to the team's strong performance in the championship.

Workshop Participant, Deep Learning and Robotics, National University of Singapore *Jul 2023*

- **Designed and Implemented Object Detection Algorithms:** Leveraged **convolutional neural networks (CNNs)** to develop vision functions based on **Raspberry Pi** with **Linux system**, enhancing object detection accuracy, and improving decision-making processes.
- **Developed Cross-Platform Communication:** Achieved **real-time communication functionality** among **PC**, **Raspberry Pi**, and **Arduino**, ensuring seamless and reliable integration of different modules.

Project Leader, Facial Recognition Robot Car, Shanghai Jiao Tong University *Sept 2023 – Dec 2023*

- **Architected and Led the AI-Driven System Development:** Directed the overall system design based on the **MaixPy K210** chip, successfully integrating edge AI capabilities to enable real-time **facial recognition**, and **automation**.
- **Implemented Communication Functionality:** Designed and built a **communication module** between the **PC** and the **chip** using **TCP** protocol, ensuring stable data transfer and synchronized operation across the system.

TECHNICAL SKILLS

- Programming Languages: **C++**, **Python**, **Java, Verilog (currently learning)**
- Specialized Skills:
  - **Machine Learning** and **Computer Vision**: Applied in robotics and engineering projects.
  - **Data Structures** and **Algorithms**: Strong foundation for optimized software solutions.
  - Familiar with **Linux**, **Git**, **PyTorch**

HONORS AND AWARDS

- First Prize, RoboMaster University Championship 2022 *Aug 2022*