Hanlin XUE

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EDUCATION

University of Washington, Seattle, WA, USA   09/2025 – 06/2027 (Expected)
Master of Science in Electrical Engineering (MSEE), Professional Master's Program (PMP, Full time)
○ Relevant Coursework: ECE Robotics Practicum, The Self Driving Car: AI For Mobile Robots

Xidian University, Xi'an, China   09/2021 – 06/2025
B.Eng in Electronic Information Engineering (EIE)
○ **GPA: 3.8/4.0;   Average Score: 89.1/100**
○ **National Scholarship, Ministry of Education – National Highest Scholarship (Top 1%)**   12/2022
○ Relevant Coursework: Data Structure & Algorithm (3.8), Advanced Programming (Python) (3.9),
       Intelligent Robot (3.9), Practice of Ti Robot Suite (4.0)

EXPERIENCE

Dreame Technology, Magiclab (Humanoid Robot) Department, Suzhou, China   03/2025 – 06/2025
VLA-based Robotic Grasping System on Franka and Humanoid Robot   Robotics VLA Algorithm Intern

- **Framework Development:** Built an end-to-end embodied AI framework for robotic arm grasping tasks: integrated data collection, model inference, and robotic arm control; enabling one-click deployment of multiple ROS2 nodes
- **Model Deployment:** Fine-tuned and deployed the Pi0 VLA model on the Franka Panda arm and humanoid robot's manipulator, achieving a 67% success rate in natural-language-driven grasping tasks
- **Team Collaboration:** Created onboarding documentation and modular code examples, enabling new interns to quickly contribute to the project

DISCOVER Robotics, AIR Lab, Tsinghua University, Bejing, China   06/2024 – 09/2024
Interactive Robotic Arm Grasping System Using YOLO and GraspNet   Robotics Algorithm Intern

- Designed an open-vocabulary robotic grasping system using YOLO-World + GraspNet with RGB-D cameras and point cloud processing, achieving 66% grasp success rate on novel objects
- Refactored robotic arm control into modular object-oriented Python/ROS APIs, enabling flexible perception-to-manipulation pipelines and improving team development efficiency

PROJECTS

Embedded Object Detection System on Edge Devices   02/2025 – 05/2025
Undergraduate Final Year Project   Edge Computing

- Compressed deep learning object detection model for edge deployment, reducing model size to **435 KB** and achieving stable **2 FPS on <512 KB RAM**
- Architected and implemented a lightweight human-detection system on ESP32-S3 in C++/FreeRTOS, integrating sensing, inference, and Wi-Fi communication for real-time IoT applications

SKILLS

○ **Computer Vision & AI:** Python/PyTorch, Vision (CNN, ViT, UNet, Diffusion),
       Object Detection (YOLO), 3D Point Cloud Processing, GraspNet
○ **Robotics:** ROS/ROS2, MoveIt, Franka, Gazebo, Isaac Sim, Radar, Kinematics/Dynamics, Motion Planning
○ **Tools & Platforms:** Git, Docker, CMake, Linux/Ubuntu, Jupyter