

Lixin Xu

+86 13563319952 • +65 89187934 • lxu397@gatech.edu • davidxulixin@gmail.com • davidlxu.github.io

RESEARCH INTERESTS

I am deeply committed to advancing the field of robotics with a focus on the integration of cognitive and athletic intelligence to create robotics foundation models that could revolutionize our modern industry and society.

EDUCATION

The Hong Kong University of Science and Technology *Guangzhou, China* Starting Sept 2025
Ph.D Student in Robotics. Supervisor: Renjing Xu

Georgia Institute of Technology *Atlanta, United States | Shenzhen, China* Dec 2024
M.Sc. in Electrical and Computer Engineering GPA: 4.0/4.0

- Coursework: ECE 6258 Digital Image Processing(A), ECE 6122 Adv Prog Techniques(A), ECE 6550 Linear Sys and Control(A), CS 7641 Machine Learning(A), CS 7643 Deep Learning(A), CS 7638 AI for Robotics(A), etc.

Qingdao University *Qingdao, China* June 2021
B.Sc. in Mechanical Engineering GPA: 90.96 / 100 (Top 1%)

- National Scholarship, Ministry of Education of China

INTERNSHIP

The Hong Kong University of Science and Technology *Guangzhou* June 2025 - Sept 2025
Research Assistant. Supervisor: Renjing Xu

Tsinghua University Jan 2025 - May 2025
Research Intern at Institute for AI Industry Research (AIR), Supervisor: Yilun Chen and Wenchao Ding

National University of Singapore June 2024 - Dec 2024
Research Intern at School of Computing, Supervisor: Prof. Lin Shao

PUBLICATION

DexSinGrasp: Learning a Unified Policy for Dexterous Object Singulation and Grasping in Densely Cluttered Environments | *IEEE Robotics and Automation Letters*

- Lixin Xu**, Zixuan Liu, Zhewei Gui, Jingxiang Guo, Zeyu Jiang, Tongzhou Zhang, Zhixuan Xu, Chongkai Gao, Lin Shao.
- Website: <https://nus-lins-lab.github.io/dexsingweb/>

Taming VR Teleoperation and Learning from Demonstration for Multi-Task Bimanual Table Service Manipulation | *ICRA 2025 WBCD Challenge*

- Weize Li, Zhengxiao Han, **Lixin Xu**, Xiangyu Chen, Harrison Bounds, Chenrui Zhang, Yifan Xu.
- Website: <https://wbcdcompetition.github.io/>

RESEARCH & PROJECT EXPERIENCE

ICRA WBCD Challenge | *Atlanta, United States* Jan. 2025 - May 2025

- Champion. Refer to technical report <https://arxiv.org/abs/2508.14542>

An ORB-based Stereo Vision Odometry | *Undergrad thesis* Jan 2021 - Jun 2021

- Designed PyVO (Python Visual Odometer), an ORB-based visual stereo odometer.

The 6th National Engineering Training Competition - Material Handling Robot | *Special Prize* Dec 2018 - Jun 2019

- Built a STM32-based Mecanum Wheel robot with OpenMV for object recognition.

SKILLSET

Programming and tools Isaac Lab, Isaac Gym, Python/PyTorch, C/C++, MATLAB/Simulink, ROS/ROS2, Cmake, $\LaTeX$, Solidworks

ML & Decision Making Reinforcement Learning, Imitation Learning, VLA

Control & Actuation Nonlinear control, disturbance rejection control, dynamics modeling

Languages Mandarin(native), English(IELTS 7.5, GRE 322, CET6 614), Cantonese (colloquial), German(A2), Japanese(N4)