Jinzhou Li

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Research interests

My research focuses on enabling robots to achieve **human-level dexterity** in complex environments by integrating multisensory intelligence with advanced control strategies and machine learning.

Education

2025 - **Duke University** - Durham, NC

Incoming PhD in Robotics

Advisor: Prof. Xianyi, Cheng.

2022 – 2023 **Cornell University** – Ithaca, NY

M.Eng in Systems Engineering

Advisor: Prof. Maha, Haji.

2017 – 2021 University of Vermont – Burlington, VT

BS in Computer Science

Research experience

2024 - 2025 Peking University, PKU-Agibot Lab

Advisor: Prof. Hao, Dong.

Tactile Dexterous Manipulation, Sim2Real, Real2Sim2Real

2022 – 2023 Cornell University, SEA Lab & MIT, Engineering System Lab

Advisors: Prof. Maha, Haji. & Prof. Daniel, Hasting.

- 1) System of Systems Concept for Effective Oceans to Near Space Observation
- 2) Hybrid Agent-Based Model and Discrete Event Simulation to Optimize AUV Fleet Operations

Honors and scholarships

2017 - 2021 Merit Scholars Award

Awarded for academic excellence; \$5,000 per semester.

Publications

Paper (* denotes equal contribution):

6. TwinAligner: Visual and Physical Real2Sim2Real All-in-one for Robotic Manipulation

Hongwei Fan*, Hang Dai*, Jiyao Zhang*, **Jinzhou Li**, Qiyang Yan, Yujie Zhao, Xuanyu Lai, Hao Tang, Hao Dong *Preprint*, 2025.

5. ClutterDexGrasp: A System for General Closed-Loop Dexterous Grasping in Cluttered Scenes

Zeyuan Chen*, Qiyang Yan*, Yuanpei Chen*, Jiyao Zhang, Tianhao Wu, Zihan Ding, **Jinzhou Li**, Yaodong Yang, Hao Dong.

The Conference on Robot Learning (CoRL) (Oral), 2025.

4. Adaptive Visual-Tactile Fusion with Predictive Force Attention for Dexterous Manipulation

Jinzhou Li*, Tianhao Wu*, Jiyao Zhang, Zeyuan Chen, Haotian Jin, Mingdong Wu, Yujun Shen, Yaodong Yang, Hao Dong

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) (Oral), 2025.

3. SimLauncher: Launching Sample-Efficient Robotic Reinforcement Learning via Simulation Pre-training

Mingdong Wu*, Lehong Wu*, Yizhuo Wu*, Weiyao Huang, Hongwei Fan, Zheyuan Hu, Haoran Geng, **Jinzhou Li**, Jiahe Ying, Long Yang, Yuanpei Chen, Hao Dong. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)* (Oral), 2025.

2. Canonical Representation and Force-Based Pretraining of 3D Dexterous Visuo-Tactile Policy Learning

Tianhao Wu, **Jinzhou Li***, Jiyao Zhang*, Mingdong Wu, Hao Dong. *IEEE International Conference on Robotics and Automation (ICRA), 2025.*

1. HGIC: A Hand Gesture Based Interactive Control System for Efficient and Scalable Multi-UAV Operations

Mengsha Hu, Jinzhou Li, Runxiang Jin, Chao Shi, Lei Xu, Rui Liu.

IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), 2024.

Presentations:

1. HGIC: A Hand Gesture Based Interactive Control System for Efficient and Scalable Multi-UAV Operations

Jinzhou Li, Mengsha Hu, Lei Xu, Yibei Guo, Rui Liu

IEEE International Symposium on Multi-Robot & Multi-Agent Systems (MRS), 2023.

Teaching experience

Fall 2023 Cornell University

Teaching Assistant, Meta CS 4782: Intro to Deep Learning

Industry experience

2024 – 2025 **Agibot Inc.** – Research Intern

Service

Reviewer

ICRA (2024, 2025)

Technical skills

Programming languages

Python, C++, Rust

Software

La Text, Git, ROS, PyTorch, Unreal Engine, IssacGym

Robot Experience

Leap Hand, Hello Robot, Franka, Aloha, Flexiv