

Zhexi Luo 羅喆熙

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Research Interests

Dexterous manipulation and grasping; robot foundation models; learning from human demonstrations.

Keywords: Dexterity; generalization.

Education

Sun Yat-sen University

Bachelor of Engineering in Computer Science and Technology

School of Computer Science and Engineering

Average score: 85/100

Guangzhou, China

Sep 2022–Jun 2026

Research Highlights

* Equal contribution.

DexMimic: A Generalist Dexterous Hand-Object Tracking Policy via Value-Guided Reset Allocation

Zhexi Luo, Zhixuan Xu, Rui Yang, Zeyu Xiao, Yiwen Hou, Lin Shao.

Under review, Sep 2026. Paper Project

OmniDexGrasp: Generalizable Dexterous Grasping via Foundation Model and Force Feedback

Yi-Lin Wei*, Zhexi Luo*, Yuhao Lin, Mu Lin, Zhizhao Liang, Shuoyu Chen, Wei-Shi Zheng.

IEEE International Conference on Robotics and Automation (ICRA), 2026. Paper Project

Collaborative Projects

T(R,O) Grasp++: Cross-Embodiment Dexterous Grasping in Cluttered Environments at Scale

Xin Fei*, Zhixuan Xu*, Huacong Fang, Fangjun Chen, Zhaoyu Mu, Rui Yang, Zhexi Luo, Lin Shao.

Conference on Robot Learning (CoRL), 2026. Paper Project

Humanoid Whole-Body Manipulation via Active Spatial Brain and Generalizable Action Cerebellum

Zhizhao Liang*, Yi-Lin Wei*, Xuhang Chen*, Mu Lin, Yi-Xiang He, Zhexi Luo, Jun-Hui Liu, Kun-Yu Lin, Wei-Shi Zheng.

European Conference on Computer Vision (ECCV), 2026 (Oral). Paper Project

AXIS: A Growable Community-Driven Data Engine for Scalable Robot Manipulation

Mengfei Zhao*, Dihong Huang*, Yikai Tang*, Peihao Li*, Mingxuan Yan*, Ruiqi Zhuang*, Yanjia Huang*, Jie Wang,

Hai Zhai, Tony Zhou, Rui Zhang, Zhexi Luo, Yuchen Huang, Jianfei Yang, Jiachen Li.

Physical World Models for Scaling Embodied AI @ IROS 2026. Technical Report Website

DriftTrace: Combating Concept Drift in Security Applications Through Detection and Explanation

Yuedong Pan, Lixin Zhao, Tao Leng, Zhexi Luo, Lijun Cai, Aimin Yu, Dan Meng.

IEEE Transactions on Information Forensics and Security (TIFS), vol. 21, pp. 1957–1972, 2026. Paper

Research Experience

LinS Lab, National University of Singapore (NUS)

Research Intern, Supervisor: Prof. Lin Shao

Nov 2025–Present

Projects: DexMimic; T(R,O) Grasp++.

- Train generalist dexterous manipulation policies through large-scale reinforcement learning.
- Harness generative foundation models to synthesize dexterous grasp data at scale.

Axis Robotics

Researcher

Jan–May 2026

Projects: AXIS.

- Built scalable web-based infrastructure for robot data collection.

Intelligence Science and system Lab (iSEE), Sun Yat-sen University

Undergraduate Researcher, Supervisor: Prof. Wei-Shi Zheng

Apr–Sep 2025

Projects: OmniDexGrasp; Humanoid Whole-Body Manipulation.

- Developed generalizable dexterous grasping across prompts, hands, and tasks using foundation models.
- Developed humanoid whole-body manipulation using agents and a generalist controller.

Technical Skills

Programming: Python, C, C++, JavaScript, TypeScript.

Tools: Blender, Viser, LaTeX.

Simulation: Isaac Gym, MuJoCo.

Hardware: Wuji and Inspire hands; Kinova and xArm manipulators.

Honors and Academic Service

2023: National First Prize, China Undergraduate Mathematical Contest in Modeling.

Conference Reviewer: CVPR 2026, ICCV 2026, ECCV 2026, IROS 2026, NeurIPS 2026, ICRA 2027.