

GUO JINGXIANG

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EDUCATION

Harbin Institute of Technology, Shenzhen

Bachelor of Engineering in Automation — GPA: 3.7/4.0

Sep. 2021 – Jul. 2025

Shenzhen, China

National University of Singapore

NGNE Program

Jul. 2024 – May. 2025

Singapore

RESEARCH EXPERIENCE

RLGroup Lab

Research Assistant — Advisor: Yanjie Li

Jun 2022 – Jun 2024

Shenzhen, China

- We investigate the effect of logarithmic bases on policy gradient methods in deep reinforcement learning, introducing the Logarithmic Basis Policy Gradient (LBPG) and Adaptive LBPG algorithms.
- We propose a novel method to improve locomotion learning for a single quadruped robot using multi-agent deep reinforcement learning (MARL).

LinS Lab

Research Assistant — Advisor: Lin Shao

Jul 2024 – Present

Singapore

- We propose a novel representation, $\mathcal{D}(\mathcal{R}, \mathcal{O})$, tailored for dexterous grasping tasks. This interaction-centric formulation transcends conventional and object-centric paradigms, facilitating robust generalization across diverse robots, objects, and environments.
- We developed Mobot, a mobile manipulation robot, to serve as a platform for conducting dual-arm manipulation experiments in controlled environments.
- We developed a teleoperation data collection system to gather real-world data for training dexterous manipulation with multi-tactile fusion.

PUBLICATIONS

1. Qi Liu*, **Jingxiang Guo***, Sixu Lin, Shuaikang Ma, Jinxuan Zhu, Yanjie Li, “**MASQ: Multi-Agent Reinforcement Learning for Single Quadruped Robot Locomotion**”. In submission to ICRA 2025. [\[arXiv\]](#)
2. Zhenyu Wei*, Zhixuan Xu*, **Jingxiang Guo**, Yiwen Hou, Chongkai Gao, Zhehao Cai, Jiayu Luo, Lin Shao, “ **$\mathcal{D}(\mathcal{R}, \mathcal{O})$ Grasp: A Unified Representation for Cross-Embodiment Dexterous Grasping**”. In submission to ICRA 2025. CoRL 2024 @ MAPoDeL, **Best Robotics Paper Award** & Oral Presentation. CoRL 2024 @ LFDM, **Spotlight Presentation**. [\[Web\]](#)
3. Qi Liu, **Jingxiang Guo**, Zhongjian Qiao, Pengbin Chen, Yanjie Li, “**Logarithmic Function Matters Policy Gradient Deep Reinforcement Learning**”. Accepted to DAI 2024.
4. Haonan Chen, Junxiao Li, Ruihai Wu, Yiwei Liu, Chongkai Gao, Zhixuan Xu, Yiwen Hou, **Jingxiang Guo**, Zhenyu Wei, Siang Chen, Chenting Wang, Shensi Xu, Jiaqi Huang, Weidong Wang, Lin Shao, “**MetaFold: Language-Guided Cross-Category Garment Folding Framework via Trajectory Generation and Foundation Model**”. In submission to CVPR 2025.
5. Kuntian Dai, **Jingxiang Guo**, Nengfeng Liu, Guanyu Hou, Jinbin Guo, Junkai Wang, Ruiquan Dong, “**A Novel Fast-Reversing Device for Rail Systems**”. National Patent, Published 2023.

AWARDS

Best Robotics Paper Award in CoRL 2024 @ MAPoDeL

Nov 2024

National First Prize in RoboMaster University Championship (RMUC)

Mar 2023

National First Prize in The 6th China Intelligent Robots Innovation Competition

Jul 2023

Provincial First Prize in China Undergraduate Mathematical Contest in Modeling (CUMCM)

Sep 2023

Honorable Mention in Mathematical Contest in Modeling (MCM)

Mar 2023

MISCELLANEOUS

Language: English (IELTS 7.5, GRE 321), Chinese (Native)

Academic Service: Reviewer for ICRA 2025

Programming Skills: Python, C/C++, MATLAB

Tools: SOLIDWORKS, ROS, PCB Design, STM32, Arduino, \LaTeX

Interest: Experienced in trekking and climbing, forging a resilience will that stands unwavering