

MengYing Lin

Georgia Institute of Technology, MS in Robotics, College of Computing

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Education

MS in Robotics (College of Computing), Georgia Institute of Technology	Aug 2024-Expected May 2026, GPA: 3.91/4
Bachelor in Computer Science, University of Chinese Academy of Science	Sep 2020-Jun 2024, GPA: 3.88/4
Exchange student, University of California, Berkeley	Jan 2023-Aug 2023, GPA: 4/4

Job Experiences

National Key Laboratory of Multimodal Artificial Intelligence Systems of the Institute of Automation	Aug 2023-Sep 2024
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Research Intern | Supervisor: [Dongbin Zhao](#) and [Yaran Chen](#) | Beijing, China

- Developed a plug-and-train module that dynamically balances LLM-derived general priors with training-data-specific priors to improve downstream policy learning.
- Achieved state-of-the-art performance in both seen and unseen environments in AI2-THOR simulator.
- Transferred navigation policies from simulation to physical robots in a zero-shot setting with successful real-world task completion. (Paper accepted to **IROS 2025 oral**.)

Institute for AI Industry Research, Tsinghua University

Mar 2024-Oct 2024

Research Intern | Supervisor: [Zike Yan](#) | Beijing, China

- Built a task-aware neural field system for more accurate scene understanding, supporting multi-modal localization and navigation.
- Exploit a selective experience replay strategy to prioritizing task-relevant, high-confidence features to mitigate semantic noise.
- Achieved +4.36 improvement on localization accuracy over the previous state of the art, enabling more reliable navigation planning.

Research Experiences

Robot Learning and Reasoning Lab

Dec 2024-Present

Student Researcher | Supervisor: [Danfei Xu](#) and [Utkarsh Mishra](#) | Atlanta, GA

- Developed a part-level graph correspondence framework enabling zero-shot manipulation transfer across unseen object categories.
- Built multi-scale object representations and an optimal-transport-based matching algorithm to propagate grasps and trajectories purely from geometric structure.
- Integrated the method with MimicGen to generate diverse demonstrations and validated the approach through simulation and real-world execution with a Franka Panda robot. (Paper under review at **CVPR 2026**)

Berkeley Artificial Intelligence Research Lab (BAIR)

Mar 2023-Jul 2023

Research Assistant | Supervisor: [Yu Sun](#) | Berkeley, CA

- Adapted model-based reinforcement learning policies to environments with varying physical attributes.
- Integrated Mujoco derivative API into the training loop to enable differentiable dynamics modeling.
- Developed an observation-affine model to adapt transition dynamics and applied Model Predictive Control for robust performance.

Publication

Lin, M., Gao, S., Zhang, D., Chen, Y. & Zhao, D.(2024). Advancing Object Goal Navigation Through LLM-enhanced Object Affinities Transfer. arXiv preprint arXiv:2403.09971. [[arxiv](#)]

Technical Skills

Languages: Python, C/C++, Java, Shell script

Frameworks: PyTorch, ROS/ROS2, Mujoco, OpenGL, Habitat-sim, SAPIEN, Gazebo

Robotics Platforms: Franka Emika Panda, Rainbow RB-Y1 humanoid, TurtleBot, LoCoBot **Tools:** Git, Docker, Conda, CMake

Related Courses

Deep Reinforcement Learning (4.0/4.0) | Machine Learning (4.0/4.0) | Deep Learning (4.0/4.0)

Computer Vision (4.0/4.0) | Computer Graphics (4.0/4.0)

Honors and Awards

UCAS Excellence Scholarship(2021, 2022, 2023)

2021 Nationwide University Student Competition Five Minute Research Presentation 2nd Prize

2022 RoboMaster University League 3v3 Match 3rd Prize