

Wo Wei Lin

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Education

Northeastern University

Ph.D., Computer Science: AI and Robotics

M.S., Computer Science: AI

Boston, MA

In Progress

May 2026

Tufts University

B.S., Computer Engineering

Medford, MA

May 2023

Experience

Northeastern University – Lab for Learning and Planning Robotics

Boston, MA

Research Assistant

August 2023 – Present

- Developed a novel multi-agent partially observable inverse reinforcement learning algorithm to teach robot teamwork and interpersonal skills using human expert demonstrations.
- Built real-robot and simulated evaluation pipelines for robot-robot and human-robot collaboration.
- Designed and evaluated value-factorization methods for asynchronous multi-robot reinforcement learning, enabling agents with different action durations to coordinate in cooperative tasks; published; resulted in publication at **IROS 2026**.
- Investigated reward-free backdoor attacks introduced through untrusted RL simulators and evaluated their effectiveness on physical agents; resulted in publication at **ICLR 2026**.
- Engineered and fine-tuned Vision-Language-Action (VLA) pipelines, bridging high-level language planning with low-level control.
- *Publications*: E. Rathbun, W. W. Lin, A. Oprea, and C. Amato, “Beware Untrusted Simulators – Reward-Free Backdoor Attacks in Reinforcement Learning,” *ICLR*, 2026. E. Marchesini, W. W. Lin, P. Donti, C. Amato, “Asynchronous Value Factorization for Multi-Robot Cooperative Reinforcement Learning,” *IROS*, 2026.

Tufts University – Multimodal Learning, Interaction and Perception Lab

Medford, MA

Research Assistant

August 2019 – May 2023

- Developed models and simulations in Gazebo and PyBullet for RL research in curriculum learning, creative problem-solving, and knowledge transfer.
- Implemented and evaluated lifelong action-discovery methods on Baxter and Universal Robots manipulators, enabling agents to compose novel behaviors for previously unseen tasks
- Co-authored three publications on creative problem solving and action discovery at ICCV, IEEE ICDL, and an RSS workshop

NASA Goddard Space Flight Center (OSTEM)

Greenbelt, MD

Research Intern

June 2022 – August 2022

- Designed and implemented a proof-of-concept autonomous data collection system for scientific exploration in space.
- Developed a simulation environment enabling spacecraft to apply deep RL for autonomous maintenance across various mission scenarios.
- Presented findings demonstrating spacecraft ability to independently sequence decisions to complete science objectives to branch head and NASA research staff.

Skills & Interests

Technical: Python, PyTorch, ROS, Linux, GIT, Deep Learning, Multi-Agent /Reinforcement Learning, LLMs, Machine Learning

Laboratory: PyBullet, Isaac Sim, Multi-Agent Particle Environment