Xiaofeng Lin

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Availability: May–Dec 2026

Education

Boston University   **Boston, MA**
Ph.D. in Systems Engineering   *Aug 2023 – Dec 2027*

University of Michigan, Ann Arbor   **Ann Arbor, MI**
M.S. in Robotics   *Aug 2021 – May 2023*

Tianjin University   **Tianjin, China**
B.Eng. in Engineering Mechanics   *Sep 2016 – Jul 2020*

Publications

[1]: **Xiaofeng Lin***, Sirou Zhu*, Yilei Chen, Mingyu Chen, Hejian Sang, Ioannis Paschalidis, Zhipeng Wang, Aldo Pacchiano and Xuezhou Zhang. Scaling In-Context Online Learning Capability of LLMs via Cross-Episode Meta-RL. *Under Review*. [paper][code]

[2]: **Xiaofeng Lin***, Hejian Sang*, Zhipeng Wang and Xuezhou Zhang. Debunk the myth of SFT Generalization. *Under Review*. [paper][code]

[3]: **Xiaofeng Lin** and Xuezhou Zhang. Efficient Reinforcement Learning in Probabilistic Reward Machines. In *The Thirty-Ninth AAAI Conference on Artificial Intelligence (AAAI)*, 2025. **Oral Presentation**. [paper][code]

[4]: Zian Ning, Yin Zhang, **Xiaofeng Lin** and Shiyu Zhao. A Real-to-Sim-to-Real Approach for Vision-Based Autonomous MAV-Catching-MAV. In *Unmanned Systems*, 2024. [paper]

[5]: Zirui Xu*, **Xiaofeng Lin*** and Vasileios Tzoumas. Leveraging Untrustworthy Commands for Multi-Robot Coordination in Unpredictable Environments: A Bandit Submodular Maximization Approach. In *American Control Conference (ACC)*, 2024. [paper][code]

[6]: Zirui Xu, **Xiaofeng Lin** and Vasileios Tzoumas. Bandit Submodular Maximization for Multi-Robot Coordination in Unpredictable and Partially Observable Environments. In *Robotics: Science and Systems (RSS)*, 2023. [paper][code]

Research Experience

Boston University   **Advisor: Prof. Xuezhou Zhang**
Research Assistant   *Sept 2023 – Current*

○ **Scaling ICL of LLM Agents**: Developed a cross-episode, multi-task meta-RL framework that trains LLMs to learn from interaction experience in-context, improving online decision-making and generalizing to unseen environments [1].

○ **SFT Generalization**: Identified frozen-prompt artifacts; showed prompt diversity + CoT enable SFT generalization to unseen tasks/harder regime [2].

○ **RL in Probabilistic Reward Machines**: Developed the first efficient PRM-RL algorithm; established improved regret bounds vs prior deterministic-RM work; introduced a new simulation lemma for non-Markovian rewards [3].

Honors & Awards

BU Systems Engineering PhD Travel Award   Feb 2025
BU Distinguished Systems Engineering Fellowship   Sept 2023
Outstanding Graduate of Tianjin University (Top 10%)   May 2020

Technical Skills

Programming: Python; C++; MATLAB; Java/Android; ROS; MAVLink

Deep Learning and LLM-Training: PyTorch; HuggingFace Ecosystem; Verl; Rllm; Verl-Agent