Feng Chen

TEL (+86)15052358633 **E-mail** chenfeng20010105@gmail.com

EDUCATION

Nanjing University **Nanjing, China**

M.Sc Student in School of **Artificial Intelligence** **Sep 2022 ~ Jun 2025**

- **Supervisor**: Prof. Zong-Zhang Zhang
- **Research interest**: Reinforcement Learning, Large Language Models, Multi-Agent Systems
- Admitted without entrance examination

Bachelor in School of **Artificial Intelligence** **Sep 2018 ~ Jun 2022**

- B.S. in Computer Science and Technology, first 3 years' GPA: **4.74**/5.00, ranked **1st** in the major
- **Scholarships:** National Scholarship, People's Scholarship

PUBLICATIONS

First Author / Co-first Author

- **Efficient Multi-Agent Cooperation Learning through Teammate Lookahead**. Transactions on Machine Learning Research (TMLR), 2025.
  In current MARL algorithms, agents are trained with current round of teammates but are required to collaborate with the updated teammates, which we refer to as teammate delay. This work proposes to lookahead the future policy of the teammates to enhance the collaborative learning.
- **Efficient Multi-agent Communication via Self-supervised Information Aggregation**. Advances in Neural Information Processing Systems (NeurIPS), 2022.
  This work proposes an efficient multi-agent communication algorithm, which disentangles information aggregation and extraction, and utilizes two self-supervised learning objectives to enhance the communication learning.
- **Stable Continual Reinforcement Learning via Diffusion-based Trajectory Replay**. International Conference on Learning Representations (ICLR) Workshop GenAI4DM, 2024.
  This work proposes a new solution to continual reinforcement learning, where it utilizes diffusion model to replay high-return trajectories of previous tasks to help alleviate catastrophic forgetting issue.
- **Multi-Agent Policy Transfer via Task Relationship Modeling.** Science China Information Sciences (SCIS), 2024.
  This work proposes multi-agent policy transfer algorithm via task relationship modeling, which handles the varying lengths of inputs with a PIN network and learns an effect-based task representation to help transfer policy among tasks.
- **Communication-Robust Multi-Agent Learning by Adaptable Auxiliary Multi-Agent Adversary Generation**. Frontiers of Computer Science (FCS), 2024.
  This work focuses on the problem of learning robust multi-agent communication policies. It proposes an adversarial learning framework to assist in learning robust and effective communication policies for multi-agent communication algorithms.

Second Author

- **Efficient Communication via Self-supervised Information Aggregation for Online and Offline Multi-agent Reinforcement Learning**. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2025.
  This is an extension of the work of NeurIPS 2022. In this work, we additionally consider the problem of offline multi-agent communication learning. We design an offline dataset and modify our algorithm to test its effectiveness in offline learning problem setting.
- **One by One, Continual Coordinating with Humans via Hyper-Teammate Identification**. Transactions on Machine Learning Research (TMLR), 2024.
  This paper presents Concord, a continual learning framework using hyper-teammate identification to enable AI agents to sequentially coordinate with diverse human teammates while preventing forgetting

and promoting knowledge transfer.

Other Publications

- Lei Yuan, Ziqian Zhang, Ke Xue, Hao Yin, Feng Chen, Cong Guan, Lihe Li, Chao Qian, Yang Yu. **Robust multi-agent coordination via evolutionary generation of auxiliary adversarial attackers**. *Accepted by AAAI 2023* ***(Oral Presentation)***.
- Lei Yuan, Lihe Li, Ziqian Zhang, Feng Chen, Tianyi Zhang, Cong Guan, Yang Yu, Zhihua Zhou. **Learning to Coordinate with Anyone**. *Accepted by DAI 2023* ***(Best Paper Award)***.
- Shihan Dou, Jiayi Chen, Chenhao Huang, Feng Chen, Chengzhi Wei, Huiyuan Zheng, Shichun Liu, Yan Liu, Chenxiao Liu, Chao Xin, Lin Yan, Zongzhang Zhang, Tao Gui, Qi Zhang, and Xuanjing Huang. **Lost in the Context: Insufficient and Distracted Attention to Contexts in Preference Modeling**. *Accepted by ACL 2025*.
- Shihan Dou, Ming Zhang, Chenhao Huang, Jiayi Chen, Feng Chen, Shichun Liu, Yan Liu, Chenxiao Liu, Cheng Zhong, Chao Xin, Chengzhi Wei, Zongzhang Zhang, Tao Gui, Qi Zhang, Lin Yan, Yonghui Wu, Xuanjing Huang. **EvaLearn: Quantifying the Learning Capability and Efficiency of LLMs via Sequential Problem Solving**. *Accepted by NeurIPS 2025*.

PROJECT EXPERIENCE

Multi-AGV Path Finding Project with Hikvision **Nov 2021 ~ Nov 2022**

Advisor: Zong-Zhang Zhang, Professor, School of Artificial Intelligence, Nanjing University

- Participated in a storage project focusing on multi-agent path finding (MAPF) for automated guided vehicles, designing an efficient and safe reinforcement learning algorithm that outperformed baselines and incorporated scalable distributional training for policy learning. This method was published as a student abstract at AAAI 2023, where I was the first author.

INTERNSHIP

Large language model research intern at **ByteDance (Seed)** **Sep 2024 ~ Jun 2025**

- Focused on algorithmic research and exploration during the post-training stage of Large Language Models. Investigated advanced optimization strategies and methodologies to enhance model performance and alignment.

Reinforcement learning research intern at **Polixir** **Jul 2022 ~ Mar 2023**

- Participated in building an adversarial reinforcement learning framework on which two reinforcement learning algorithms can be deployed to learn against each other in adversarial environments.

Reinforcement learning research intern at **ByteDance** **Jul 2021 ~ Oct 2021**

- Conducted research within Game AI scenarios, specifically focusing on the training methodologies for intelligent agents and the exploration of algorithms for automated game scene generation.

SKILLS

Language Ability: IELTS (8.0)

Programming Skills: I am skilled in python, C/C++ programming, and using PyTorch for building deep (reinforcement) learning, and large language model projects.

AWARDS

2022 Annual Outstanding Graduate Student, Nanjing University

2020 Provincial Merit Student, China