

ANDREW ZHAO | Curriculum Vitae

Department of Automation, Tsinghua University – Citizenship: **Canada**

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🌐 Personal Page 🎓 Google Scholar 🐙 Github **in** LinkedIn 🐦 X/Twitter

Seeking Research Scientist positions in AI/ML with targeted start date: **June 2026**

💡 Research Statement

My research focuses on **reinforcement learning for LLMs**, **reasoning**, **LLM-based agents**, and the **safety** challenges associated with generative AI, with an emphasis on robustness, generalization, diversity, and self-evolving systems requiring minimal human intervention. Recently, I have become interested in the reasoning capabilities of large language models. I aim to advance the development of innovative, reliable, and autonomous AI systems capable of adapting to diverse and dynamic environments.

🎓 Education


Tsinghua University <i>PhD, Pattern Recognition and Machine Learning, China</i> Reinforcement Learning, Agents, Natural Language Processing, Deep Learning	Beijing 2021–present
University of Southern California <i>Master of Science, USA</i>	Los Angeles 2019–2020
University of British Columbia <i>Bachelor of Applied Science, Canada</i>	Vancouver 2012–2017

📄 Selected Publications


2025

Andrew Zhao, Erle Zhu, Rui Lu, Matthieu Lin, Yong-Jin Liu, and Gao Huang. Self-referencing agents for unsupervised reinforcement learning. *Neural Networks*, page 107448, 2025.

Andrew Zhao, Quentin Xu, Matthieu Lin, Shen zhi Wang, Yong jin Liu, Zilong Zheng, and Gao Huang. Diver-ct: Diversity-enhanced red teaming large language model assistants with relaxing constraints. In *Proceedings of the AAAI Conference on Artificial Intelligence (ORAL)*, 2025.

Andrew Zhao, Yiran Wu, Yang Yue, Tong Wu, Quentin Xu, Yang Yue, Matthieu Lin, Shen zhi Wang, Qingyun Wu, Zilong Zheng, and Gao Huang. Absolute zero: Reinforced self-play reasoning with zero data  ★ **1.6k**, 2025.

2024

Andrew Zhao, Daniel Huang, Quentin Xu, Matthieu Lin, Y. Liu, and Gao Huang. Expel: Llm agents are experiential learners  ★ **147**. In *Proceedings of the AAAI Conference on Artificial Intelligence (ORAL)*, 2024.

2022

Andrew Zhao, Matthieu Lin, Yangguang Li, Yong-Jin Liu, and Gao Huang. A mixture of surprises for unsupervised reinforcement learning. *Advances in Neural Information Processing Systems*, 2022.

Research Experience

Microsoft Research, Redmond.....

Research Intern @ AI Interaction and Learning Group
Worked on AI Safety of Self-improving LLM Systems.

June, 2025 – August, 2025

Advisor :: Dr. Jack Stokes, Principal RSDE @ MSR Redmond

Microsoft Research, Redmond.....

Research Intern @ Augmented Learning and Reasoning Group
Worked on LLM-based agent applications for cybersecurity investigations.

June, 2024 – August, 2024

Advisor :: Dr. Jack Stokes, Principal RSDE @ MSR Redmond

Beijing Institute for General Artificial Intelligence (BIGAI).....

Research Intern @ Natural Language and Conversational AI Lab
Worked on red teaming LLMs to increase sample diversity using constrained on-policy reinforcement learning and reward shaping.

Jan, 2024 – May, 2024

Advisor :: Dr. Zilong Zheng, Research Scientist @ BIGAI ([Personal Web-page](#))

Peking University, Beijing.....

Research Intern
Contributed to research projects in embodied AI and robotic research.

January, 2021 – June, 2021

Advisor :: Professor Hao Dong, Assistant Professor, Department of Electronics Engineering and Computer Science, Beijing ([Personal Web-page](#))

Academic Talks

May/June, 2025: 9 Invited Talks at *Hugging Face/Amazon AGI Labs/Microsoft/ByteDance/BAAI/Gaoling School of AI/ERIC Lab/The Network School/Plutos* for **Absolute Zero Reasoner**

February, 2025: AAAI 2025 Oral Presentation DiveR-CT

January, 2025: AI TIME Youth PhD Talk - DiveR-CT

August, 2024: IJCAI 2024 AI4Research Workshop Invited Paper Talk for Expel

February, 2024: AAAI 2024 Oral Presentation of Expel: LLM Agents are Experiential Learners

January, 2024: AI TIME Youth PhD Talk - Expel: LLM Agents are Experiential Learners

February, 2023: AI TIME Youth PhD Talk - A Mixture of Surprises for Unsupervised Reinforcement Learning

Academic Services

2023–present: Academic Reviewer in NeurIPS 2023/2024, ICLR 2024/2025, AAAI 2025, ICML 2024/2025, AISTATS 2025

Last updated: July 25, 2025

Complete publication list and project pages available at
andrewzh112.github.io