## Manjie Xu

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RESEARCH Machine Learning, Active Learning, Computer Vision, Human-Robot Interaction

**EDUCATION** Beijing Institute of Technology, Peking

Advisor: Prof. Dr. Wei Liang

M.S in Computer Science Sep.2022 ( - June.2025)

The Cognitive Reasoning Lab, Peking University

July.2021 - now

Advisor: Prof. Dr. Yixin Zhu Nanjing University, Nanjing

B.E. in Computer Science Sep.2018 - June.2022

## RESEARCH INTERESTS

My research interests are primarily focused on machine learning, with a particular emphasis on active learning and in-context learning. I aim to create intelligent agents that not only adapt to their environment but also exhibit synergistic interactions with humans. Specifically, in light of the significant advancements in pre-trained large language models (LLMs), my current pursuits are mainly twofold: 1) custom LLMs for domainspecific tasks like code generation or causal reasoning, and 2) developing LLM-guided agents that proactively engage with and learn from their surroundings.

## **SELECTED PUBLICATIONS**

Xu, M., Jiang, G., Liang, W., Zhang, C., & Zhu, Y. Conan: Active Reasoning in an Open-World Environment. Thirty-seventh Conference on Neural Information Processing Systems (NeurIPS), 2023.

Xu\*, M., Jiang\*, G., Liang, W., Zhang, C., & Zhu, Y. IVRE: Interactive Visual Reasoning under Uncertainty. Thirty-seventh Conference on Neural Information Processing Systems (NeurIPS), 2023.

Shi\*, Y., Xu\*, M., Hopcroft, J.E., He, K., Tenenbaum, J.B., Zhu, S., Wu, Y.N., Han, W., Zhu, Y. On the Complexity of Bayesian Generalization. Proceedings of the 40th International Conference on Machine Learning (ICML), 2023.

Jiang\*, G., Xu\*, M., Zhu, S. C., Han, W., Zhang, C., & Zhu, Y. Evaluating and Inducing Personality in Pre-trained Language Models. Thirty-seventh Conference on Neural Information Processing Systems (NeurIPS), 2023 (spotlight).

All my publications can be found at My Google Scholar Page

RECOGNITION Outstanding Academic Scholarships (Nanjing University)

Outstanding Academic Scholarships (Beijing Institute of Technology)

People's Scholarship of China (Nanjing University)

Honors Graduate, KUANG YAMING HONORS SCHOOL, Nanjing University

**OTHER** Institute for Artificial Intelligence, Peking University

**EXPERIMENTS** Research Intern July.2021 - now

National Key Laboratory of General Artificial Intelligence, BIGAI

Research Intern Oct.2021 - Aug.2023

Machine Learning Summer School, Massachusetts Institute of Technology

Online Exchange July.2020 - Aug.2020

**REVIEWER** ECCV, NeurIPS, CVPR, ICLR and ICML.