

Ruiwen Zhou

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Education

Shanghai Jiao Tong University

M.S. student in Computer Science (GPA: 3.83 / 4.00)

Expected Mar 2025

Shanghai, China

Shanghai Jiao Tong University

B.S. in Information Engineering (GPA: 3.90 / 4.30)

Sep 2018 - Jun 2022

Shanghai, China

Interest

I am now pursuing M.S. degree in Shanghai Jiao Tong University, advised by Prof. Weinan Zhang and Prof. Yong Yu.

My interest lies in building powerful agents that automatically help people to complete repeating tasks and inspire creative ideas / designs. To achieve this, recently I focus on:

- Learning from environment feedback with LLMs.
- Retrieval-Augmented Generation with LLMs.
- LLMs + X (music, control, etc.) applications.

Experience

China Pacific Insurance Company

Student Leader of a Collaboration Project

Feb 2023 – Feb 2024

Shanghai, China

- Proposed a step-wise in-context example retrieval and prompting method to better solve sequential decision making tasks with LLMs, which achieves state-of-the-art performances on various benchmarks.
- One paper released on ArXiv and in submission.

Amazon Web Service

Research Intern, Shanghai AI Lab

Feb 2022 – Feb 2023

Shanghai, China

- Participated in design and implementation of a novel tabular prediction model based on relevant sample retrieval and graph neural networks, which achieves state-of-the-art performances on various benchmarks.
- One paper accepted at NeurIPS 2022.

Microsoft Research Asia

Research Intern, Machine Learning Group

Aug 2021 – Jan 2022

Shanghai, China

- Proposed a history-dependent reinforcement learning algorithm (Trajectory Q-Learning), which achieves theoretical optimality and decent practical performance in risk-sensitive policy optimization under distortion risk measures.
- One paper (done in Jan 2023) released on ArXiv and in submission.

Publications

TRAD: Enhancing LLM Agents with Step-Wise Thought Retrieval and Aligned Decision

R. Zhou, Y. Yang, M. Wen, Y. Wen, W. Wang, C. Xi, G. Xu, Y. Yu, and W. Zhang.

ArXiv preprint

Is Risk-Sensitive Reinforcement Learning Properly Resolved?

R. Zhou, M. Liu, K. Ren, X. Luo, W. Zhang, and D. Li.

ArXiv preprint

Learning Enhanced Representations for Tabular Data via Neighborhood Propagation

K. Du, W. Zhang, R. Zhou, Y. Wang, X. Zhao, J. Jin, Q. Gan, Z. Zhang, and D. Wipf.

NeurIPS 2022

Awards

National Scholarship (Top 1 / 144)

2020

A-Class Excellence Scholarship (Top 1 / 144)

2020

B-Class Excellence Scholarship (Top 10%)

2019, 2021