## Hanbing Liu

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Gaoling School of Artificial Intelligence (GSAI),

Renmin University of China (RUC),

Haidian, Beijing, China

## **Education**

2024-2027\* M.Phil. in Artificial Intelligence

Gaoling School of Artificial Intelligence, Renmin University of China

Advisor: Qi Qi

2020-2024 **B.E.** in Computer Science and **B.A.** in Finance

Experimental Dual Degree Program, Renmin University of China

Advisor: Jing Zhang, Ju Fan

GPA: 3.78/4.0 (Rank: 2/98, 2.0%)

#### **Research Interests**

Various topics around Large Language Models (complex reasoning, tool learning, deep learning theory, etc.) and Algorithmic Game Theory (mechanism design, information design, etc.).

# Working papers

- W1. **Liu, Hanbing**, Li, N., Li, W., Qi<sup>†</sup>, Q. & Yu, C. *Optimal Contest Design with Entry Restriction* arXiv preprint arXiv:2502.09014. 2025. https://arxiv.org/abs/2502.09014.
- W2. **Liu, Hanbing**, Li, W., Li, N. & Qi<sup>†</sup>, Q. *Incentive Effects of a Cut-off Score: Optimal Contest Design with Transparent Pre-selection* Submitted. 2025.

## Research Experience

2021	D 1	
2024–	Kesearch	Assistant.

Decision AI Lab, Renmin University of China, (Advisor: Qi Qi)

**Topic**: Algorithmic game theory, and its intersection with machine learning.

2023–2025 Research Assistant,

Knowledge Reasoning and Cognitive Learning Lab, Renmin University of China, (Advisor: Jing Zhang)

**Topic**: Large language model for coding tasks (pre-training, post-training).

2022–2023 Research Assistant,

Data Lab, Renmin University of China, (Advisor: Ju Fan)

<sup>\*</sup>Expected.

**Topic**: Deep reinforcement learning for data preparation.

# **Professional Experience**

2024-2025	Research Intern,
	Baidu, Inc., (Mentor: Bin Zou)
	<b>Topic</b> : Mechanism design in online advertisement auctions.
2023-2023	Research Intern,
	Jinke Lanzhi Technology (Beijing) Co., Ltd., (Mentor: Jun Zhu)
	Topic: Domain adaptation for Large Language Models in Text-to-SQL task.
2022-2023	Quantitative Strategy Researcher,
	Shanghai Quant Infinite Asset Management Co., Ltd, (Mentor: Yueguo Chen)
	<b>Topic</b> : Machine learning based high-frequency trading strategies for A-shares.

## **Selected Awards**

2024	Graduate Entrance Scholarship, First Class (1st Place)
2024	Outstanding Graduate of Beijing
2024	Industrial and Commercial Bank of China (ICBC) Scholarship
2023,2022	Huawei Scholarship
2022	Academic Excellence Scholarship, First Class (Top 3% GPA)
2020	Renmin University of China Programming Contest, Gold Medal (2nd Place)
2018	National Olympiad in Informatics in Provinces (NOIP), First Prize

## **Publications**

## **G** Google Scholar

#### Conference

- C1. **Liu, Hanbing**\*, Li\*, H., Zhang, X., Chen, R., Xu, H., Tian, T., Qi, Q. & Zhang<sup>†</sup>, J. *Uncovering the Impact of Chain-of-Thought Reasoning for Direct Preference Optimization: Lessons from Text-to-SQL* in *Annual Meeting of the Association for Computational Linguistics* (*ACL*, *CCF-A*) (2025).
- C2. Chen, S., Liu, Hanbing, Jin, W., Sun, X., Feng, X., Fan<sup>†</sup>, J., Du, X. & Tang, N. ChatPipe: Orchestrating Data Preparation Pipelines by Optimizing Human-ChatGPT Interactions in Companion of the 2024 International Conference on Management of Data (SIGMOD, CCF-A) (2024), 484–487.
- C3. Li, H., Zhang<sup>†</sup>, J., **Liu, Hanbing**, Fan, J., Zhang, X., Zhu, J., Wei, R., Pan, H., Li, C. & Chen, H. Codes: Towards building open-source language models for text-to-sql in Proceedings of the ACM on Management of Data (SIGMOD, CCF-A) 2 (ACM New York, NY, USA, 2024), 1–28.

<sup>\*:</sup> Equal contribution,  $(\alpha\beta)$ : Alphabetical order, †: Corresponding Author

# **Academic Service**

# Secondary Reviewer

2025	IJTCS, EC, WINE, KDD

WINE, KDD

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Last updated: July 23, 2025