

Hanbing Liu

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**Gaoling School of Artificial Intelligence (GSAI),
Renmin University of China (RUC),
Haidian District, Beijing, China**

Education

- 2024-2027* **M.Phil.** in Artificial Intelligence
Gaoling School of Artificial Intelligence, Renmin University of China
Advisor: [Prof. Qi Qi](#)
- 2020-2024 **B.E.** in Computer Science and **B.A.** in Finance
Experimental Dual Degree Program, Renmin University of China
Advisor: [Prof. Jing Zhang](#), [Prof. Ju Fan](#)
Thesis: *Learn from hindsight in Text-to-SQL:
Large Language Models can gain more from supervised dataset*
GPA: 3.78/4.0 (Rank: 2/98, 2.0%)

Research Interests

I currently focus on the **Economics of Foundation Models**, through lens of mechanism design and machine learning, in this academic year. My ongoing works are about emerging commercial paradigms in the LLM era [[P1–P3](#)]. Previously, my research lies in contest design [[C1](#), [W1](#)] and LLM complex reasoning [[C2–C4](#)]. With a interdisciplinary background, I am also broadly interested in intersections between algorithmic game theory and foundation models.

Research Experience

- 2024– Research Assistant,
[Decision AI Lab](#), Renmin University of China, (Advisor: [Prof. Qi Qi](#))
Topic: Mechanism design and its intersection with foundation models.
- 2023–2025 Research Assistant,
[Knowledge Reasoning and Cognitive Learning Lab](#),
Renmin University of China, (Advisor: [Prof. Jing Zhang](#))
Topic: Large language model for coding tasks (pre-training, post-training).
- 2022–2023 Research Assistant,
[Data Lab](#), Renmin University of China, (Advisor: [Prof. Ju Fan](#))
Topic: Deep reinforcement learning for data preparation.

*Expected.

Professional Experience

2025-	Research Intern,  Alibaba (Mentor: Bin Liu and Ziru Xu) Topic: Bidding-aware set-wise large advertisement retrieval models.
2024–2025	Research Intern,  Baidu (Mentor: Bin Zou) Topic: Mechanism design in online advertisement auctions.
2023	Research Intern,  Jianxin Financial 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: Dr. Yueguo Chen) Topic: Machine learning based high-frequency trading strategies for A-shares.

Selected Awards

2025	Graduate Academic Excellence Scholarship, First Class
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

Working papers

- W1. **Liu, Hanbing**, Li, W., Li, N. & Qi[†], Q. *Incentive Effects of a Cut-off Score: Optimal Contest Design with Transparent Pre-selection* Under Review. 2025.

Works in Progress

- P1. **Liu, Hanbing**., An, N. & Qi, Q. *Agentic Large Language Models with Budget Constraints*
- P2. **Liu, Hanbing**., Li, Z. & Qi, Q. *Trading Data through LLM Provision: A Mixture-of-Expert Framework*
- P3. **Liu, Hanbing**., Zhang, B., Zhu, Q. & Qi, Q. *Selling Native Advertisements in LLM-Generated Content*

Publications

 Google Scholar

*: Equal contribution, (αβ): Alphabetical order, [†]: Corresponding Author

Conference

- C1. **Liu, Hanbing**, Li, N., Li, W., Qi[†], Q. & Yu, C. *Less is More: Optimal Contest Design with a Shortlist in The Conference on Web and Internet Economics (WINE, CCF-A)* (2025).
- C2. **Liu, Hanbing**^{*}, Li^{*}, H., Zhang, X., Chen, R., Xu, H., Tian, T., Qi, Q. & Zhang[†], 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).
- C3. Chen, S., **Liu, Hanbing**, Jin, W., Sun, X., Feng, X., Fan[†], 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.
- C4. Li, H., Zhang[†], 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.

Academic Service

Conference (Sub-)Reviewer

2026	KDD, AAAI, AAMAS, ICLR
2025	IJTCS, EC, WINE, NeurIPS, KDD, COCOON
2024	WINE, KDD

Skills & Languages

Softwares Python (PyTorch, JAX, TensorFlow), C++, SQL, Bash; LLM train/inference frameworks: Transformers, vLLM, LLaMA-Factory, DeepSpeed, Triton, VeRL; Database Management: SQLite, PostgreSQL.

Languages English (CET-6), Chinese (Native).

Last updated: December 4, 2025