BOHAN LYU UNDERGRADUATE

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EDUCATION

Tsinghua University Beijing, China
Dual Major: Computer Science and Technology & Economics and Finance 2022 - 2026
- **GPA**: 3.9/4.0, **Rank**ed 1-st for the past year.
- **Selected A Courses:** Data Mining ($A+$, Top 1), Ordinary Differential Equation ($A+$, Top 1), Game Theory and Mechanism Design, Probability and Statistics, Artificial Intelligence, Advanced Linear Algebra, Discrete Mathematics, Computational Humanities and Social Sciences, Computer Networks, Computer Graphics, Calculus A(2), etc.
- **Academic Interests:** ML, NLP, AI4Science.

RESEARCH EXPERIENCES

Princeton Language and Intelligence (PLI), Princeton | Remote 2024.11 - Present
- Research intern, advised by Prof. Chi Jin. Working with Dr. Yong Lin.
- Working on autonomous math theorem proving with formal language.

Rose Spatiotemporal Lab, UCSD | San Diego, CA, USA 2024.07 - 2024.11
- Research intern, advised by Prof. Rose Yu. Worked with Dr. Yadi Cao.
- Worked on aligning large language models with the physical world.

Tsinghua NLP Lab | Beijing, China 2023.07 - Present
- Led **Agent Imitation Learning** and **OpenAgent** projects, member of **XAgent** team.
- Exploring multimodal learning and the applications of large models in the natural sciences.

PUBLICATIONS AND PROJECTS

1. Yong Lin*, Shange Tang*, **Bohan Lyu**, Jiayun Wu, Hongzhou Lin, Kaiyu Yang, Jia Li, Mengzhou Xia, Danqi Chen, Sanjeev Arora, Chi Jin. **Goedel-Prover: A Frontier Model for Open-Source Automated Theorem Proving.** Technical Report, 2025.

2. **Bohan Lyu***, Yadi Cao*, Duncan Watson-Parris, Leon Bergen, Taylor Berg-Kirkpatrick, Rose Yu. **Adapting While Learning: Grounding LLMs for Scientific Problems with Intelligent Tool Usage Adaptation.** *International Conference on Machine Learning (ICML) 2025*, *AAAI Fall Symposium Series (Oral) 2024*.

3. **Bohan Lyu***, Xin Cong*, Heyang Yu, Pan Yang, Yujia Qin, Yining Ye, Yaxi Lu, Zhong Zhang, Yukun Yan, Yankai Lin, Zhiyuan Liu, Maosong Sun. **Enhancing LLM's Capabilities in Open Domains via Autonomous Tool Integration.** *Proceedings of Annual Meeting of the Association for Computational Linguistics (ACL, Main Conference) 2025*.

AWARDS AND HONORS

- **Spark Scientific and Technological Innovation Fellowship** (**Top 1%** in Tsinghua) 2024.05
- **No. 1/636,** Baidu Inc. Data Mining Competition (Loan Default Prediction) 2024.06
- **First Prize,** National College Student Mathematical Modeling Contest (Beijing) 2023.10
- **Second Place & Newcomer Prize,** Tsinghua University's Challenge Cup 2024.04
- **Best Paper of Popularity,** Contest of Scientific Communication 2024.05
- **Global Exploration Initiative,** Grade A 2024.04
- **Academic Advancement Program,** Excellent Program 2024.11
- **Scientific and Technological Innovation Excellence Scholarship** 2024.11

ACADEMIC SERVICES

Reviewers: *ARR May 2025, ARR Feb. 2025, ICLR 2025, LLMAgents @ ICLR 2024, AI4MATH @ ICML 2024.*
Volunteer: *ICML 2025.*