BOHAN LYU UNDERGRADUATE

EDUCATION

Tsinghua University

Beijing, China

Dual Major: Computer Science and Technology & Economics and Finance 2022 - 2026

- GPA: 3.9/4.0, Ranked 6-th among dual major students.
- Selected A Courses: Data Mining (A+, Top 1), ODE (A+, Top 1), Artificial Intelligence, Computer Graphics, Linear Algebra (Advanced), Discrete Mathematics, Econometrics, Intermediate Microeconomics, Computational Humanities and Social Sciences, Computer Networks, Linear Algebra, Calculus A(2), etc.
- Academic Interests: ML, NLP, AI4Science.

Research Experiences

Chi Jin's Group, 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 natural sciences domain.

Publications and Projects

- 1. Bohan Lyu*, Siqiao Huang*, Zichen Liang*. SURGE: On the Potential of Large Language Models as General-Purpose Surrogate Code Executors. Preprint, 2025.
- 2. 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.
- 3. 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. AAAI Fall Symposium Series (Oral), 2024. Main Conference Under Review.
- 4. 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. Under Peer Review, 2023.

Awards and Honors

• 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

Team Gold Prize, Digital Economy Research Project 2023.11
Third Place, Tsinghua University's Business Imitation Contest 2022.10

Grants

• Global Exploration Initiative, ¥20,000, Grade A	2024.04
• Academic Advancement Program, ¥20,000, Grade B	2024.05
• 'Sparking Program', ¥15,000	2024.05
• Student Research Training, ¥5,000	2024.05

• Technology Innovation Excellence Scholarship, ¥5,000 2024.11

• Tsinghua University's Challenge Cup, ¥3,000 2024.03

SKILLS Languages: English, Chinese.

Programming: Python, C/C++, System Verilog, LATEX, MATLAB, etc.

Tools: Ray, DeepSpeed, vllm, Docker, etc.

Reviewers for: ICLR 2025, LLMAgents @ ICLR 2024, AI4MATH @ ICML 2024.

Academic Services

Member of 'Sparking Program', the most prestigious and selective academic organization

at Tsinghua University.