

Jialiang Gu

Ph.D. Student in Computer Science

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Summary

- First-year Ph.D. student in Computer Science at George Mason University, advised by Prof. Keren Zhou. I also collaborate closely with Prof. Jialu Zhang at the University of Waterloo. My research interests focus on machine learning systems, LLM applications, and teaching and learning in the LLM era.

Education

Ph.D. Student	George Mason University , Computer Science • Advisor: Prof. Keren Zhou	Fairfax, VA, USA Jan 2025 – present
Undergraduate	Wuhan University , Computer Science, Hongyi Honor College • Overall GPA: 3.72/4.0	Wuhan, China Jan 2021 – Jan 2025

Publications

Context-Aware Feedback Compression in Online Judge Programming with LLMs

Jialiang Gu, Keren Zhou, Daming Li, Hanyuan Shi, and Jialu Zhang. FSE-IVR, 2026.
Jialiang Gu, Keren Zhou, Daming Li, Hanyuan Shi, Jialu Zhang

A Systematic Study of Time Limit Exceeded Errors in Online Programming Assignments

Jialiang Gu and Jialu Zhang contributed equally. arXiv:2510.14339 [cs.SE], 2025.
Jialiang Gu, Jialu Zhang, Wangmeiyu Zhang, José Pablo Cambronero, John Kolesar, Ruzica Piskac, Daming Li, Hanyuan Shi

DiscoSum: Discourse-aware News Summarization

Jia-Liang Gu, Tenghao Huang, and Alexander Spangher* contributed equally.
arXiv:2506.06930 [cs.SE], 2025.
Jia-Liang Gu, Tenghao Huang, Alexander Spangher*, Jiatong Shi, Muhao Chen

Experience

University of Waterloo , Research Assistant Study on Time Limit Exceeded errors characteristics in competitive programming. • Advisor: Prof. Jialu Zhang	Waterloo, Canada Jan 2023 – Jan 2025 2 years 1 month
University of California, Davis , Research Intern Structural summarization with large language models. • Advisor: Prof. Muhao Chen	Davis, CA, USA July 2024 – Sept 2024 3 months

Academic Competition Awards

Champion, 2024 ICPC China Hubei Provincial Contest (Wuhan)	May 2024
Gold Medal, International Collegiate Programming Contest (ACM-ICPC) Hangzhou Regional Contest	Dec 2023
Bronze Medal, International Collegiate Programming Contest (ACM-ICPC) EC-Final	Jan 2024

Silver Medal, International Collegiate Programming Contest (ACM-ICPC) Macau Regional Contest	Nov 2023
Silver Medal, International Collegiate Programming Contest (ACM-ICPC) Xi'an Regional Contest	Nov 2022
Silver Medal, International Collegiate Programming Contest (ACM-ICPC) Nanjing Regional Contest	Nov 2022
Gold Medal, 2023 ICPC China Shaanxi National Invitational Programming Contest (Xi'an)	May 2023
Gold Medal, 2023 CCPC China Hunan National Invitational Programming Contest (Xiangtan)	May 2023
Silver Medal, The 9th China Collegiate Programming Contest (Shenzhen)	Nov 2023
Silver Medal, The 8th China Collegiate Programming Contest (Weihai)	Nov 2022
First Prize, 2023 RAICOM Robotics Challenge national finals	Aug 2023
Third Prize, The 2nd CCF Siannan Cup Quantum Computing Challenge	Aug 2023

Honors and Experience at School

Excellent Teaching Assistant, Computer Composition and Design	Jan 2024
Excellent Student, Hongyi Honor College, Wuhan University (Top 15%)	Jan 2024
CCF Excellent Student, CCF National Outstanding College Student Award	Oct 2024
Assistant Head Teacher, Hongyi Honor College, Wuhan University	Jan 2022

Technical Skills

Programming Languages: C/C++, Python

Platforms: Windows, macOS, Linux

Other: Verilog, PyTorch

Certification: China Computer Federation Certified Software Professional (CCF-CSP): 470/500, Top 0.1%

Projects

Triton-Viz Core developer of an open-source project. <ul style="list-style-type: none"> Developed and maintained the visualizer module, focusing on extending Triton-Viz to support additional tile-level languages and improving its visualization infrastructure. 	Jan 2025 – present
32-bit Pipelined CPU based on RISC-V Verilog personal project, Wuhan. <ul style="list-style-type: none"> Implemented a 32-bit pipelined RISC-V CPU in Verilog, supporting 32 basic instructions and successfully running C/C++-compiled programs and an FPGA-deployed aircraft shooting game. 	July 2023 – present
Tripo APP Test engineer and project manager for a large-scale software application design course project. <ul style="list-style-type: none"> Built a travel diary app with post sharing, GPT-based summary generation, and AI-powered hotspot recommendation features. 	Oct 2023 – present

Research Interests

- Machine learning systems (MLSys)
- LLM applications for code understanding, analysis, and explanation
- Ecosystem tools for next-generation GPU programming languages such as Triton
- LLM reasoning and reliability with static analysis and agent-based methods

Others

- Codeforces homepage: <https://codeforces.com/profile/gujialiang123>
- Language: English (CET-4 562)