

Yanzheng Xiang

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Professional Summary

My current research focuses on AI for Scientific Discovery, spanning reliable code reproduction from academic papers and the use of reinforcement learning to help LLM-based agents propose more novel scientific ideas and predict promising research directions. I am also a direct contributor to Meta’s Muse Glimmer and Muse Spark models.

Experience

Meta Nov. 2025 – Sep. 2026

Research Engineer

- Core contributor to Muse Glimmer, an open agentic foundation model.
- Contributed to the development of Muse Spark.
- Developing AI Scientist agents: LLM-based systems that automate scientific research tasks and machine learning engineering workflows.

AstraZeneca Jul. 2025 – Oct. 2025

Internship

Supervised by Dr. Saseendran and Dr. Jin.

Conducted research on efficient inference for diffusion language models. Published COVER at ICML 2026, achieving up to $11.64\times$ decoding speedup while preserving generation quality.

Education

King’s College London Sep 2023 – Sep 2027 (Expected)

Ph.D. in Computer Science

Supervised by Prof. Yulan He with Dr. Lin Gui as Co-advisor.

Topic: Large Language Model, In-context Learning, Interpretability.

Southeast University Sep 2020 – Jun 2023

M.S. in Software Engineering

Average Score: 86.42 / 100

Supervised by Prof. Deyu Zhou.

Topic: Question Answering, Code Generation.

Hefei University of Technology Sep 2016 – Jun 2020

B.E. in Computer Science and Technology

Publications

[ICML 2026] **Yanzheng Xiang**, Lan Wei, Yizhen Yao, Qinglin Zhu, Hanqi Yan, Chen Jin, Philip Alexander Teare, Dandan Zhang, Lin Gui, Amrutha Saseendran, Yulan He.

Stop the Flip-Flop: Context-Preserving Verification for Fast Revocable Diffusion Decoding.

[COLM 2025] **Yanzheng Xiang**, Hanqi Yan, Shuyin Ouyang, Lin Gui, Yulan He.
SciReplicate-Bench: Benchmarking LLMs in Agent-driven Algorithmic Reproduction from Research Papers.

[Findings of ACL'23] **Yanzheng Xiang**, Qian-Wen Zhang, Xu Zhang, Zejie Liu, Yunbo Cao, Deyu Zhou.
G3R: A Graph-Guided Generate-and-Rerank Framework for Cross-domain Text-to-SQL Generation.

[Findings of ACL'24] **Yanzheng Xiang**, Hanqi Yan, Lin Gui, Yulan He.
Addressing Order Sensitivity of In-Context Demonstration Examples in Causal Language Models.

[EMNLP'24] Hanqi Yan, **Yanzheng Xiang**, Guangyi Chen, Yifei Wang, Lin Gui, Yulan He.
Encourage or Inhibit Monosemanticity? Revisit Monosemanticity from a Feature Decorrelation Perspective.

[EMNLP'24] Yuxiang Zhou, Jiazheng Li, **Yanzheng Xiang**, Hanqi Yan, Lin Gui, Yulan He.
The Mystery of In-Context Learning: A Comprehensive Survey on Interpretation and Analysis.

[Findings of ACL'25] Xinyu Wang, **Yanzheng Xiang**, Lin Gui, Yulan He.
PECAN: LLM-Guided Dynamic Progress Control with Attention-Guided Hierarchical Weighted Graph for Long-Document QA.

[Findings of EMNLP'21] Deyu Zhou, **Yanzheng Xiang**, Linhai Zhang, Chenchen Ye, Qian-Wen Zhang, Yunbo Cao.
A Divide-And-Conquer Approach for Multi-label Multi-hop Relation Detection in Knowledge Base QA.

Awards and Honors

NMES International Studentship	2023 – 2027
Outstanding Graduate Student, Hefei University of Technology	2020
Merit Student, Hefei University of Technology	2018

Invited Talks

LLaMA Community Meet-up Apr. 6, 2025
Invited talk at Meta: “Towards Automatic Code Reproduction for Scientific Papers: Benchmarks and Methodologies.”

Competitions

National First Prize (Top 0.65%), China Undergraduate Mathematical Contest in Modelling 2018

The contest challenges teams of up to three students to analyze, model, solve, and present solution reports to an open-ended application problem.

1st Place, Spider Leaderboard 2022

Spider is a large-scale semantic parsing dataset. Our model G3R achieved 1st place on the “exact set match without values” metric. Currently ranked 5th.

Course Teaching

Discrete Mathematics, Southeast University

2021

Computer Programming for Data Scientists, King's College London

2024

Other Skills

IT: C++, SQL, Python, LaTeX

Languages: English (Fluent, IELTS 7.0), Chinese (Native)