Wuqiang Zheng

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Education

University of Science and Technology of China (USTC) *Sep 2022 –Present*

BS in Data Science

- GPA: **3.85**/4.30 | Average Score: **90.1**/100 | Rank: **7**/50
- Selected Courses: Artificial Intelligence (100), Deep Learning (95), Machine Learning (93), Mathematical Analysis (97), Numerical Algebra (95), Mathematical Equation (100), Stochastic Process (97)

Research Interests

My research focuses on **Large Language Models, Multimodal Large Language Models**. Specifically, I work to enhance their capabilities in reasoning, understanding, and generation in different modalities, while developing principled adaptation methods for domain-specific applications. Hoping to leverage their strong fundamental capabilities to build a reliable and trustworthy systems.

Publications

Navigating Through Paper Flood: Advancing LLM-based Paper Evaluation through Domain-Aware Retrieval and Latent Reasoning

Under review at **AAAI 2026**

Wuqiang Zheng, Yiyan Xu, Xinyu Lin, Chongming Gao, Wenjie Wang, Fuli Feng

arXiv:2508.05129 (2025)

TLDR: We propose PaperEval, an LLM-based pipeline for accurate and reliable scientific paper evaluation.

DRC: Enhancing Personalized Image Generation via Disentangled Representation Composition

ACM MM 2025 (Oral)

Yiyan Xu, ***Wuqiang Zheng***, Wenjie Wang, Fengbin Zhu, Xinting Hu, Yang Zhang, Fuli Feng, Tat-Seng Chua

arXiv:2504.17349 (2025)

TLDR: We introduce DRC, a novel personalized image generation framework that enhances LMMs through Disentangled Representation Composition.

Reserach Experience

Large Language Models for Domain-Specific Programming Languages *CDFG@MIT*

Adivisors: Prof. Wojciech Matusik (MIT) *Jun 2025 - Present*

- Design a statistics-specific DSL with compiler toolchain (Lark) for Bayesian inference, and develop its NLP interface (StatModelCopilot) that translates natural language to DSL code through custom LLM training, and build an end-to-end workflow for researchers to easily leverage our Copilot.
- Spearheaded full-stack development (DSL design, compiler implementation, LLM training/data pipeline, benchmark creation) for natural language-to-statistical-code generation.
- **We are preparing for ICLR 2026!**

Research on Capability Enhancement of Large Models *LDS@USTC*

Adivisors: Prof. Wenjie Wang, Fuli Feng (USTC) *Aug 2024 - Present*

- Developed disentanglement learning techniques for personalized multimodal image generation by controlling latent visual attributes.
- Enhanced LLM document understanding through latent space reasoning and ranking optimization.
- **Published 2 papers as first author and second author.**

Projects

PaperRec: Building Reliable Academic Paper Recommendation System Based on Large Language Models *Mar 2025 - Present*

Adivisors: Prof. Wenjie Wang, Fuli Feng (USTC)

- Designed and implemented an LLM-based framework for high-accuracy academic paper evaluation, achieving state-of-the-art performance on various benchmark datasets. Based on the framework, I developed an academic literature framework incorporating paper retrieval, filtering, and LLM-based survey generation.
- This system powers our WeChat public account "智荐阁" (Zhijian Ge), which **gained 8,000+ followers within six months, with multiple posts achieving 10,000+ views**, demonstrating strong community engagement and knowledge dissemination impact.
- I **independently led the entire process**, from conceptualizing the design and building the complete pipeline to managing the operation of the WeChat public account, and finally submitted our paper.

Awards

USTC Outstanding Student Scholarship - Silver Award *2023*

USTC Outstanding Student Scholarship - Copper Award *2024*

National Undergraduate Mathematics Competition - Second Prize *2023*

Teaching Assistant

Artificial Intelligence (Spring 2025) *Mar 2025 - Jul 2025*

- Instructor: *Prof. Xiang Wang Xiangnan He (USTC)*
- Job: Daily Q&A, Having exercise classes, Develop and evaluate course assignments
- Course repo: github.com/ShirakawaSanae/USTC-DS4001-25sp

Stochastic Process - B (Fall 2024) *Sep 2024 - Jan 2025*

- Instructor: *Prof. Jie Liu (USTC)*
- Job: Daily Q&A, Having exercise class, Homework correcting

Skills

English: TOFEL:97 (L 24, R 26, S 23, W 24)

Coding: C/C++, Python(Pytorch), LATEX, MySQL