Xiangyu Zeng

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 GitHub Profile
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 Chinese Citizen

EDUCATION

• M.Sc. in Computer Science and Technology
University of Electronic Science and Technology of China (UESTC)

09.2022-07.2025 GPA: 3.77/4.00

• B.Eng. in Software Engineering
Chengdu University of Technology (CDUT)

09.2017-07.2022 **GPA: 3.60/5.00**

RESEARCH INTERESTS

My research is in **machine learning** and **artificial intelligence**, specifically in areas such as large language models (**LLMs**) and diffusion models. And I am dedicated to merging insights from cognitive science to advance toward artificial general intelligence (**AGI**).

Currently, my research focuses on enhancing the **representation** and **reasoning** capabilities of large-scale models such as **Transformers** by integrating concepts from **memory** and **reflective** mechanisms.

PUBLICATIONS

Xiangyu Zeng, Jie Lin*, Piao Hu, Ruizheng Huang, Zhicheng Zhang, "A Framework for Inference Inspired by Human Memory Mechanisms", *International Conference on Learning Representations (ICLR)*, 2024.

Xiangyu Zeng, Jie Lin*, Piao Hu, Zhihao Li, Tianxi Huang, "SDMTR: A Brain-inspired Transformer for Relation Inference", Artificial Intelligence and Statistics (AISTATS), 2024.

Jie Lin*, **Xiangyu Zeng**, Yulong Pan, Shangqing Ren, Yige Bao, "Intelligent Inspection Guidance of Urethral Endoscopy Based on SLAM with Blood Vessel Attentional Features", *Cognitive Computation*, 2024.

Shuo Quan, Mengyu Sun*, **Xiangyu Zeng**, Xuliang Wang, Zeya Zhu, "Time Series Classification Based on Multi-Dimensional Feature Fusion", *IEEE Access*, 2023.

PATENTS

Jie Lin, **Xiangyu Zeng**, Piao Hu, Yulong Liang, Yi Bai, "A Comprehensive Evaluation Method for Enterprise Database Systems", Chinese Patent CN202310448064.7, 2023.

Jie Lin, Xinyu Xiao, Yulong Liang, Yi Bai, **Xiangyu Zeng**, Yong Wang, "A Method for Predicting Positive Margins of Prostate Cancer Based on 3D Feature Computation", Chinese Patent CN202310029875.3, 2023.

INTERNSHIP EXPERIENCE

• China Telecom Research Institute	06.2022-12.2022
Beijing, China	

HONORS AND AWARDS

• National encouragement scholarship	11.2019
• Excellent student cadre of the CDUT	10.2020
• Grade A certificate of comprehensive performance conferred by Sichuan Province	07.2021
• National encouragement scholarship	11.2021
• Outstanding graduate of CDUT	06.2022
• Outstanding graduate student of the UESTC	11.2023
- Outstanding student of the Laboratory of Intelligent Collaborative Computing at the $\overline{\text{UESTC}}$	12.2023
• Academic young achievers of the UESTC	03.2024
• Excellent student cadre of the UESTC	04.2024
• Outstanding graduate student of the UESTC	05.2024

TEACHING ASSISTANT

Fundamental of Software Technology, G0815920.03 (UESTC)

Operating System Experiment, 0852116005 (UESTC)

ACADEMIC ACTIVITIES

• Poster Present at ICLR'2024

Vienna, 05.2024

• Poster Present at AISTATS'2024

 $Valencia,\ 05.2024$