Zihan Mei

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RESEARCH INTERESTS

My recent research focuses on **graph pre-training, prompt learning, and domain adaptation**, particularly for complex signed and directed relational structures. More broadly, I aim to build transferable and adaptive foundation models for structured and relational data, with particular interests in **Graph Foundation Models**, transfer learning, and the intersection of graph learning with Large Language Models (LLMs).

EDUCATION

Arizona State University Tempe, AZ, USA

PhD in Computer Science, School of Computing and Augmented Intelligence Aug. 2026 – Present

University of Glasgow / University of Electronic Science and Technology of China Chengdu, China

Dual BEng (Hons) Degrees in Electronic Information Engineering, James Watt School of Engineering Sept. 2022 – June 2026

SELECTED PUBLICATIONS

Signed Graph Pre-Training and Prompt Learning
Z. Mei, R. Pan, Y. Chen, et al., *Learning on Graphs Conference (LoG)*, 2026.

MGP: Integrating Pre-Training and Few-Shot Node Classification via Meta Graph Prompt
Z. Qin, **Z. Mei**, J. Zhou, et al., *Knowledge-Based Systems*, 2025.

A Lightweight Plastic-Memory Framework for Graph Few-Shot Class-Incremental Learning
Z. Mei, Z. Qin, H. Liu, et al., arXiv:2609.25781, 2026.

GroupToM-Bench: Benchmarking Group Theory of Mind and Nonlinear Social Emergence in MLLMs
W. Tang, J. Liu, Y. Hou, **Z. Mei**, et al., *ACL* (Main Conference), 2026.

Can We Defend Against AI-Generated Video Attacks on Real-World Crisis Events? A Systematic Evaluation of Detectors, Generators and Social Dissemination
S. Liang, Y. Ma, P. Zhou, Z. Wan, X. Chen, **Z. Mei**, et al., *arXiv:2608.14391*, 2026. (Under review at ICLR 2027)

RESEARCH EXPERIENCE

Research Assistant | Prof. Yixuan He's Group, Arizona State University Aug. 2026 – Present

- Researching transferable representation learning for **signed and directed graphs**, with emphasis on graph pre-training, prompt-based adaptation, and topology-aware learning under limited downstream supervision.
- Proposed **TopoSIGN**, a two-branch framework that combines signed GNN encoders with persistent-homology representations and transfers the fused embeddings through prompt learning for downstream adaptation.

Research Assistant | HPC-AI Lab, National University of Singapore (Remote) Jun. 2025 – Dec. 2025

- Investigated **reasoning, generalization, and robustness in multimodal large language models** through large-scale benchmark construction and systematic model evaluation.
- Contributed to studies of **group-level social reasoning** and **AI-generated video detection**, analyzing failure modes across multimodal reasoning, generator shifts, human perception, and social dissemination.

Undergraduate Researcher | Data Mining Lab, UESTC Jun. 2024 – Jun. 2025

- Studied **few-shot graph learning** under label scarcity, focusing on knowledge transfer between self-supervised pre-training and downstream node classification through prompt and meta-learning.
- Extended this line toward **graph few-shot class-incremental learning**, exploring prototype-based memory and bi-level optimization to balance adaptation to new classes with retention of previously learned knowledge.

HONORS & AWARDS

- **Finalist Award Nomination**, Mathematical Contest in Modeling (MCM), 2024 (top 2% globally)
- University Outstanding Student Scholarship, 2023

TECHNICAL SKILLS

- **Programming:** PyTorch, C/C++, MATLAB, Verilog
- **Research Methods:** Graph neural networks, self-supervised learning, prompt/meta-learning, few-shot learning, continual learning, multimodal model evaluation