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# Yang Xiao

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Location: Tulsa, Oklahoma, United States of America.

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## Education

### University of Tulsa

Doctor of Philosophy in Computer Science.

**Areas of Interest:** Trustworthy AI, Efficient AI, AI for Science.

Tulsa, Oklahoma, USA

Aug. 2024 - May. 2029

### Nankai University

Bachelor of Science in Applied Psychology.

Tianjin, China

Sept. 2020 - July. 2024

## Selected Publications

- Optimal Transport for Brain-Image Alignment: Unveiling Redundancy and Synergy in Neural Information Processing.

**Yang Xiao**, Wang Lu, Jie Ji, Ruimeng Ye, Gen Li, Xiaolong Ma, Bo Hui. *ICCV* 2025 .

[\[Paper\]](#)

- Efficient Knowledge Graph Unlearning with Zeroth-order Information

**Yang Xiao**, Ruimeng Ye, Bohan Liu, Xiaolong Ma, Bo Hui. *CIKM* 2025.

[\[Paper\]](#)

- Advancing Certified Robustness of Explanation via Gradient Quantization.

**Yang Xiao**, Zijie Zhang, Yuchen Fang, Da Yan, Yang Zhou, Wei-Shinn Ku, Bo Hui. *CIKM* 2024.

[\[Paper\]](#)

- Sculpting Memory: Multi-Concept Forgetting in Diffusion Models via Dynamic Mask and Concept-Aware Optimization.

Gen Li, **Yang Xiao**, Jie Ji, Kaiyuan Deng, Bo Hui, Linke Guo, Xiaolong Ma. *ICCV* 2025.

[\[Paper\]](#)

- DBA-DFL: Towards Distributed Backdoor Attacks with Network Detection in Decentralized Federated Learning.

Bohan Liu, **Yang Xiao**, Ruimeng Ye, Zinan Ling, Xiaolong Ma, Bo Hui. *ECAI* 2025.

[\[Paper\]](#)

## Experience

### Research Assistant at University of Tulsa

Advisor: Professor [Bo Hui](#)

- Efficient Machine Learning, Machine Unlearning, AI for Science (*ICCV* 2025) Present
- Knowledge Graph (LoG 2024, COLING 2025, CIKM 2025) May. 2024 - August. 2024
- Trustworthy AI (CIKM 2024, ECAI 2025, ICCV 2025) September. 2023 - January. 2024

### Intern in Department of AI&I at Mayo Clinic

Advisor: Professor [Nansu Zong](#)

- LLM for patients EHRs Prediction May. 2025 - August. 2025
- Multi-agents System for Drug Prediction May. 2025 - August. 2025

### Undergraduate Student at Nankai University

- Facial Expression (Undergraduate Thesis) September. 2023 - July. 2024

## Full Publications

- Optimal Transport for Brain-Image Alignment: Unveiling Redundancy and Synergy in Neural Information Processing.  
**Yang Xiao**, Wang Lu, Jie Ji, Ruimeng Ye, Gen Li, Xiaolong Ma, Bo Hui. *ICCV* 2025. [\[Paper\]](#)
- Efficient Knowledge Graph Unlearning with Zeroth-order Information  
**Yang Xiao**, Ruimeng Ye, Bohan Liu, Xiaolong Ma, Bo Hui. *CIKM* 2025. [\[Paper\]](#)
- Advancing Certified Robustness of Explanation via Gradient Quantization.  
**Yang Xiao**, Zijie Zhang, Yuchen Fang, Da Yan, Yang Zhou, Wei-Shinn Ku, Bo Hui. *CIKM* 2024. [\[Paper\]](#)
- Knowledge Graph Unlearning with Schema.  
**Yang Xiao**, Ruimeng Ye, Bo Hui. *LoG* 2024 and *COLING* 2025 **Short Paper**. [\[Paper\]](#)
- Sculpting Memory: Multi-Concept Forgetting in Diffusion Models via Dynamic Mask and Concept-Aware Optimization.  
Gen Li, **Yang Xiao**, Jie Ji, Kaiyuan Deng, Bo Hui, Linke Guo, Xiaolong Ma. *ICCV* 2025. [\[Paper\]](#)
- DBA-DFL: Towards Distributed Backdoor Attacks with Network Detection in Decentralized Federated Learning.  
Bohan Liu, **Yang Xiao**, Ruimeng Ye, Zinan Ling, Xiaolong Ma, Bo Hui. *ECAI* 2025 and *ICML Workshop* 2025, **Oral**. [\[Paper\]](#)
- A Pilot Study of Weak-to-Strong Generalization in Safety, Toxicity, and Legal Reasoning.  
Ruimeng Ye, **Yang Xiao**, Bo Hui. *ICLR* 2025 Bi-Align Workshop. [\[Paper\]](#)
- BMT-BENCH: A benchmark sports dataset for video generation.  
Ziang Shi, **Yang Xiao**, Da Yan, Min-Te Sun, Wei-Shinn Ku, Bo Hui. *ICIP* 2024. [\[Paper\]](#)

## Pre-prints

- Post-hoc and manifold explanations analysis of facial expression data based on deep learning.  
**Yang Xiao** *Undergraduate Thesis*. [\[Paper\]](#)
- A Survey of Lottery Ticket Hypothesis.  
Bohan Liu, Zijie Zhang, Peixiong He, Zhensen Wang, **Yang Xiao**, Ruimeng Ye, Yang Zhou, Wei-Shinn Ku, Bo Hui. [\[Paper\]](#)
- The Right to be Forgotten in Pruning: Unveil Machine Unlearning on Sparse Models.  
**Yang Xiao**, Gen Li, Jie Ji, Ruimeng Ye, Xiaolong Ma, Bo Hui. [\[Paper\]](#)
- Weak-to-Strong Generalization with Failure Trajectories: A Tree-based Approach to Elicit Optimal Policy in Strong Models.  
Ruimeng Ye, Zihan Wang, **Yang Xiao**, Zinan Ling, Manling Li, Bo Hui. [\[Paper\]](#)

## Service

## Conference Reviewer

- NeurIPS workshop 2025
- CVPR 2024, LoG 2024