

XIAODA WANG

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EDUCATION

Department of Computer Science, University of California, Los Angeles Mar 2026 - Mar 2027

Visiting PhD in Computer Science

Los Angeles, USA

- Advisors: Prof. Wei Wang & Prof. Yizhou Sun

Department of Computer Science, Emory University

Sep 2024 - May 2029

PhD in Computer Science

Atlanta, USA

- GPA: 4.00/4.00

- Advisor: Prof. Carl Yang

Department of Computer Science, Sichuan University

Sep 2020 - Jun 2024

B.Eng in Computer Science

Chengdu, China

- GPA: 3.88/4.00, Rank: 4/194 (**Top 2%**)

- Advisor: Prof. Mingjie Tang

Fitzwilliam College, University of Cambridge

Jan 2023 – Feb 2023

Innovation and Interdisciplinary Research Programme

Cambridge, United Kingdom

- Thesis Project: Financial Fraud Detection using Graph Neural Networks

RESEARCH INTERESTS

My research interests lie in **Large Language Models Reasoning**, **Dynamical System Modeling**, **Time-series Foundation Models**, **Diffusion Models**, and **Retrieval-Augmented Generation**. My ultimate goal is to drive meaningful advancements in research that have a tangible impact on real-world applications.

PUBLICATIONS

- **Xiaoda Wang**, Ching Chang, Defu Cao, Kaiqiao Han, Fang Sun, Yue Huang, Minxiao Wang, Chang Xu, Xiao Luo, Runze Yan, Xiangliang Zhang, Xiao Hu, Yan Liu, Yizhou Sun, Wei Wang, Carl Yang, "Position: Beyond Prediction: Toward Verifiable Physiological Waveform Reasoning with Foundation Models and Agentic LLMs" (In Submission), 2026
- **Xiaoda Wang**, Kaiqiao Han, Yuhao Xu, Xiao Luo, Yizhou Sun, Wei Wang, Carl Yang, "Simulator and Experience Enhanced Diffusion Model for Comprehensive ECG Generation," in The Fourteenth International Conference on Learning Representations (**ICLR**), 2026
- Yuhao Xu, **Xiaoda Wang**, Yi Wu, Wei Jin, Xiao Hu, Carl Yang, "ECG-MoE: Mixture-of-Expert Electrocardiogram Foundation Model," in **NeurIPS** 2025 Workshop on Learning from Time Series for Health, 2025.
- **Xiaoda Wang**, Yuji Zhao, Kaiqiao Han, Xiao Luo, Sanne van Rooij, Jennifer Stevens, Lifang He, Liang Zhan, Yizhou Sun, Wei Wang, Carl Yang, "Conditional Neural ODE for Longitudinal Parkinsons Disease Progression Forecasting," in IEEE International Conference on Bioinformatics and Biomedicine (**BIBM**), 2025. (Abstract version at the Organization for Human Brain Mapping (**OHBM**), 2025)
- Zewen Liu*, **Xiaoda Wang***, Bohan Wang, Zijie Huang, Carl Yang, Wei Jin, "Graph odes and beyond: A comprehensive survey on integrating differential equations with graph neural networks," in Proceedings of the ACM International Conference on Knowledge Discovery and Data Mining (**KDD**), 2025. (* equal contribution)

- Yuhao Xu, **Xiaoda Wang**, Jiaying Lu, Sirui Ding, Defu Cao, Huaxiu Yao, Yan Liu, Xiao Hu, Carl Yang, "EnECG: Efficient Ensemble Learning for Electrocardiogram Multi-task Foundation Model," in Proceedings of the American Medical Informatics Association Annual Summit (**AMIA**), 2025.
- **Xiaoda Wang**, Zhaoyi Liu, Tengda Guo, Zhiyuan Cheng, Carl Yang and Mingjie Tang, "BadDet: Blockchain Fraud Detection with Dynamic Address-Transaction Graph Convolutional Networks." (In Submission), 2025.
- **Xiaoda Wang**, Yuan Tang, Tengda Guo, Bo Sang, Jingji Wu, Jian Sha, Ke Zhang, Jiang Qian, Mingjie Tang, "Couler: Unified Machine Learning Workflow Optimization in Cloud," in International Conference on Data Engineering (**ICDE**), 2024.
- **Xiaoda Wang**, Chenxiang Luo, Tengda Guo, Zhangrui Liu, Jiongyan Zhang, and Haizhou Wang, "BGEK: External Knowledge-enhanced Graph Convolutional Networks for Rumor Detection in Online Social Networks," in International Conference on Artificial Neural Networks (**ICANN**), 2023.
- Yifei Jian, Xinyu Chen, **Xiaoda Wang**, Ying Liu, Xingshu Chen, Xiao Lan, Wenxian Wang, and Haizhou Wang, "A Metadata-aware Detection Model for Fake Restaurant Reviews based on Multi-modal Fusion," in Neural Computing and Applications, 2025.

OPEN SOURCE PROJECTS

Couler: Unified Machine Learning Workflow Optimization in Cloud

Apr 2023 - Feb 2024

Received 900+ stars on GitHub, Advisors: Prof. Mingjie Tang

Ant Group

- Provided a unified programming interface for workflow definition, ensuring independence from the workflow engine and compatibility with various workflow engines.
- Integrated LLMs in unified programming code generation using natural language descriptions and automated hyperparameter tuning through Dataset Card and Model Card integration.
- Divided large workflows into smaller ones for auto-parallelism optimization and implement dynamic artifact caching to minimize redundant computations and ensure fault tolerance.

HONORS AND AWARDS

- Laney Graduate Student Council Research Grant, Emory University 2024
- Outstanding Student Award 2021, 2022, 2023
- Outstanding Student Leader Award 2022
- Academic Excellence Scholarship (Top 10%) 2022, 2023
- Third Prize, China Undergraduate Mathematical Contest in Modeling 2022
- First Prize, Chinese Physics Olympiad (CPHO) 2019

SKILLS

Programming Languages: Python, C, SQL, Java

Tools and Frameworks: L^AT_EX, PyTorch, TensorFlow, PyG, Keras, Docker, Linux

SERVICES

- **Teaching Experience:**
 - Teaching Assistant for CS485: Deep Learning Fall 2024
 - Teaching Assistant for CS224: Foundations of Computer Science Spring 2025
 - Teaching Assistant for CS444: Deep Learning Fall 2025
- **Conference Review:** ICLR 2026; NeurIPS 2025; ICML 2025; AMIA 2025; KDD 2025, 2024; WWW 2025; SIGIR 2025; IJCAI 2025; AAAI 2025.
- **Journal Review:** PKDD 2025; ACM Health 2025; TNNLS 2025, 2024.