

Liancheng Fang

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Education

Ph.D. in Computer Science

Department of Computer Science, University of Illinois Chicago

Advisor: Philip S. Yu

Chicago, IL

2023 - 2027 expected

M.S. in Biomedical Data Science

Department of Biostatistics and Medical Informatics, University of Wisconsin-Madison

Madison, WI

2019 - 2021

M.A. in Mathematics

Department of Mathematics, University of Wisconsin-Madison

Madison, WI

2018 - 2019

B.S. in Mathematics and Applied Mathematics

Department of Mathematics, Sun Yat-sen University

Guangzhou, China

2014 - 2018

Publication

1. **Liancheng Fang**, Aiwei Liu, Hengrui Zhang, Henry Peng Zou, Weizhi Zhang, Philip S. Yu. RES-RAG: Residual-aware RAG for Realistic Tabular Data Generation. *3rd Table Representation Learning Workshop @ NeurIPS, 2024*
2. Hengrui Zhang*, **Liancheng Fang***, Qitian Wu, Philip S. Yu. Diffusion-nested Auto-regressive Synthesis of Heterogeneous Tabular Data. *Under submission, 2024*
3. Aiwei Liu, Sheng Guan, Yiming Liu, Leyi Pan, Yifei Zhang, **Liancheng Fang**, Lijie Wen, Philip S. Yu, Xuming Hu. Can Watermarked LLMs be Identified by Users via Crafted Prompts? *Under submission, 2024*
4. Hengrui Zhang, **Liancheng Fang**, Philip S. Yu. Unleashing the Potential of Diffusion Models for Incomplete Data Imputation. *ArXiv Preprint, 2024*
5. Henry Peng Zou, Vinay Samuel, Yue Zhou, Weizhi Zhang, **Liancheng Fang**, Zihe Song, Philip S. Yu, Cornelia Caragea. ImplicitAVE: An Open-Source Dataset and Multimodal LLMs Benchmark for Implicit Attribute Value Extraction. In *The 62nd Annual Meeting of the Association for Computational Linguistics Findings (ACL Findings), 2024*.
6. Weizhi Zhang, Liangwei Yang, Zihe Song, Henry Peng Zou, Ke Xu, **Liancheng Fang**, Philip S. Yu. Do We Really Need Graph Convolution During Training? Light Post-Training Graph-ODE for Efficient Recommendation. In *The 33rd ACM International Conference on Information and Knowledge Management (CIKM), 2024*.
7. **Liancheng Fang**, Lu Cheng. Achieving Zero Fairness-Utility Trade-off in the Long Run. *Under submission, 2024*.

Industry Experience

United Sensing Technology

Computer Vision Engineer-Autonomous Driving

Farmington Hills, MI

2022-2023

- Access, validate and optimize the performance of BEV model for 3D object detection on zero-shot robustness.
- Implement and optimize the performance of self-supervised depth estimation model for fast inference using lightweight transformer.
- Collaborating with other research team to perform experiments on sensor fusion.

Teaching Experience

Teaching Assistant

CS 401: Introduction to Algorithms, Instructor: Anastasios Sidiropoulos

Department of Computer Science, University of Illinois Chicago

Spring 2024

Teaching Assistant

ECE/CS 761:Mathematical Foundations of Machine Learning, Instructor: Ramya Korlakai Vinayak Spring 2021
Department of Electrical & Computer Engineering, University of Wisconsin-Madison

Teaching Assistant

Math234:Calculus - Functions of Several Variables, Instructor: Omer Mermelstein *Fall 2020*
Department of Mathematics, University of Wisconsin-Madison

Grader

Math714: Computational Math I, Instructor: Prof. Nan Chen *Fall 2018*
Department of Mathematics, University of Wisconsin-Madison

Technical Strengths

- **Programming Languages:** Python, C/C++, Java
- **Library:** Pytorch, Jax, CUDA
- **Others:** L^AT_EX, R, Matlab, Git, GCP, MySQL

Academic Service

Conference Reviewer: AAAI2023, ICDM2023, ICML2024, AAAI2024.