# Mufei Li

mufeili1996@gmail.com

Homepage: https://mufeili.github.io

## Education

- **Georgia Institute of Technology**  
  *Ph.D., Machine Learning*  
  Georgia, United States  
  *Aug 2023 -*

- **New York University Shanghai**  
  *B.S., Honors Mathematics*  
  Shanghai, China  
  *Sep 2014 - May 2018*

## Professional Experience

- **Software Development Engineer II**  
  *Amazon Web Services Shanghai AI Lab*  
  Shanghai, China  
  *Jul 2020 - Jun 2023*

- **Software Development Engineer I**  
  *Amazon Web Services Shanghai AI Lab*  
  Shanghai, China  
  *Feb 2019 - Jul 2020*

- **Research Assistant**  
  *New York University Shanghai*  
  Shanghai, China  
  *Jun 2018 - Feb 2019*

## Selected Publications

- Mufei Li, Viraj Shitole, Eli Chien, Changhai Man, Zhaodong Wang, Srinivas Sridharan, Ying Zhang, Tushar Krishna, Pan Li, **LayerDAG: A Layerwise Autoregressive Diffusion Model for Directed Acyclic Graph Generation**, arXiv, 2024.

- Mufei Li*, Siqi Miao*, Pan Li, **Simple is Effective: The Roles of Graphs and Large Language Models in Knowledge-Graph-Based Retrieval-Augmented Generation**, International Conference on Learning Representations (ICLR), 2024 (*Equal contribution).

- Tengfei Ma, Xiang Song, Wen Tao, Mufei Li, Jiani Zhang, Xiaoqin Pan, Yijun Wang, Bosheng Song, Xiangxiang Zeng, **Towards Synergistic Path-based Explanations for Knowledge Graph Completion: Exploration and Evaluation**, International Conference on Learning Representations (ICLR), 2024.

- Eli Chien, Mufei Li, Anthony Aportela, Kerr Ding, Shuyi Jia, Supriyo Maji, Zhongyuan Zhao, Javier Duarte, Victor Fung, Cong Hao, Yunan Luo, Olgica Milenkovic, David Pan, Santiago Segarra, Pan Li, **Opportunities and challenges of graph neural networks in electrical engineering**, Nature Reviews Electrical Engineering, 2024.

- Mufei Li, Eleonora Kreačić, Vamsi K. Potluru, Pan Li, **GraphMaker: Can Diffusion Models Generate Large Attributed Graphs?**, Transactions on Machine Learning Research (TMLR), 2024.

- Fabio Broccatelli, Richard Trager, Michael Reutlinger, George Karypis, Mufei Li, **Benchmarking Accuracy and Generalizability of Four Graph Neural Networks Using Large In Vitro ADME Datasets from Different Chemical Spaces**, Molecular Informatics, 2022.

- Ziqi Chen, Bo Peng, Vassilis N. Ioannidis, Mufei Li, George Karypis, Xia Ning, **CTKG: A Knowledge Graph for Clinical Trials**, Scientific Reports, 2022.

- Fengqing Lu, <u>Mufei Li</u>, Xiaoping Min, Chunyan Li, Xiangxiang Zeng, **De novo generation of dual-target ligands using adversarial training and reinforcement learning**, Briefings in Bioinformatics, 2021.

- <u>Mufei Li</u>, Jinjing Zhou, Jiajing Hu, Wenxuan Fan, Yangkang Zhang, Yaxin Gu, George Karypis, **DGL-LifeSci: An Open-Source Toolkit for Deep Learning on Graphs in Life Science**, ACS Omega, 2021.

- Vassilis N. Ioannidis, Xiang Song, Saurav Manchanda, <u>Mufei Li</u>, Xiaoqin Pan, Da Zheng, Xia Ning, Xiangxiang Zeng, George Karypis, **DRKG - Drug Repurposing Knowledge Graph for Covid-19**, preprint, 2020.

- Minjie Wang, Da Zheng, Zihao Ye, Quan Gan, <u>Mufei Li</u>, Xiang Song, Jinjing Zhou, Chao Ma, Lingfan Yu, Yu Gai, Tianjun Xiao, Tong He, George Karypis, Jinyang Li, Zheng Zhang, **Deep graph library: A graph-centric, highly-performant package for graph neural networks**, arXiv, 2019.

## Honors and Awards

- Georgia Tech ECE Fellowship

- Top Reviewer for NeurIPS 2024

## Peer Review Service

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

- Conference on Neural Information Processing Systems (NeurIPS), 2024

- International Conference on Learning Representations (ICLR), 2025

- International Conference on Machine Learning (ICML), 2025

- ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2024

- Learning on Graphs Conference (LoG), 2024

- Asian Conference on Machine Learning (ACML), 2024

## Talks & Tutorials

- <u>Mufei Li</u>, Fabio Broccatelli, **Accelerating Drug Discovery with Multitask Graph Neural Networks**, Nvidia GTC, 2021.

- Zichen Wang, Vassilis N. Ioannidis, Huzefa Rangwala, Tatsuya Arai, Ryan Brand, <u>Mufei Li</u>, Yohei Nakayama, **Graph Neural Networks in Life Sciences: Opportunities and Solutions**, KDD tutorial, 2022.

## Teaching Assistant

- ECE 6254 Statistical Machine Learning