

# Yaning Jia

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**Homepage:** <https://yaningjia.github.io>

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**GitHub:** <https://github.com/YaningJia>

**Address:** 1037 Luoyu Road, Wuhan, China, Huazhong University of Science and Technology

**Research interests** Deep learning, Machine Learning, NLP, Trustworthy AI, fairness

**Education**

**Huazhong University of Science and Technology** CN  
Master student in Cyber Security Sep. 2021 – Present  
Advisor: [Prof. Dongmian Zou](#)

**Northeastern University** CN  
Bachelor of Science, Computer Science Sep. 2017 – Jun. 2021  
Outstanding Honor Thesis Award  
GPA: 90/100

**Publications**

**Aligning Relational Learning with Lipschitz Fairness**  
**Yaning Jia**, Chunhui Zhang, Soroush Vosoughi.  
*The International Conference on Learning Representations (ICLR)*, 2024

**Enhancing Node-Level Adversarial Defenses by Lipschitz Regularization of Graph Neural Networks**  
**Yaning Jia**, Dongmian Zou, Hongfei Wang, Hai Jin.  
*The 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2023

**Research experience**

**Research Assistant** Aug. 2023-Present. 2024  
**Dartmouth College, US**  
Mentors: [Professor Soroush Vosoughi](#), [Chunhui Zhang](#)  
Crafted an innovative method to instill individual fairness in deep neural networks, outperforming existing methods in efficiency and effectiveness. This groundbreaking approach integrates seamlessly into network models, substantially boosting individual fairness without compromising on performance, and operates with a reduced time cost.

**Research Assistant** May 2023- Aug. 2023  
**Zhejiang Lab, National Lab at Hangzhou, China**  
Mentors: [Professor Hongyang Chen](#)

Engineered a Transformer SVD algorithm specifically designed for large-scale graph pre-training tasks. This innovative solution effectively reduces the trainable parameters in large-scale models, maintaining high performance while significantly decreasing GPU memory requirements. This advancement streamlines the efficiency of large-scale model pre-training, marking a notable improvement in both resource utilization and processing speed.

**Research Assistant**

Jun. 2022-Mar. 2023

**Duke University and Duke Kunshan University, US, China**

Mentors: [Professor Dongmian Zou](#)

Developed a pioneering framework for deep neural networks based on the Lipschitz property, significantly enhancing model stability and robustness against adversarial attacks and noisy data. This innovative approach can be integrated as a plug-in component to bolster the overall robustness of various neural network models.

**Skills**

**Programming Skills:** C++, Python, java, PyTorch, MATLAB, Git, PyG, DGL.  
**Operating System:** Linux

**Activities**

**Conference official reviewer**

ICML2023 workshop, KDD2023 workshop ,and NeuIPS 2023 workshop