Yaning Jia

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Homepage:
https://github.com/YaningJia

EDUCATION

Master student, Cyberspace Security — Sep. 2021 - Present
Huazhong University with Science and Technology, Wuhan, China
School of Cyberspace Security
Work with Prof. Hongfei Wang

B.S., Computer Science — Sep. 2017 - Jun. 2021
Northeastern University, China
School of Computer and Communication Engineering
GPA: 4.00

EXPERIENCE

Research Assistant — Jun. 2022-Mar. 2023
Duke Kunshan University, China
School of Data Science
Mentors: Prof. Dongmian Zou
Developed a Lipschitz algorithm for Graph Neural Networks (GNNs) that improves the robustness of GNNs against adversarial attacks and noisy data. The algorithm serves as a plug-in component, enhancing the overall robustness of GNN models..

Research Assistant — Mar. 2023-Jun. 2023
Brandeis University, Waltham, Massachusetts, US
Michtom School of Computer Science
Work with Ph.D. Chunhui Zhang, Prof. Chunxu Zhang, Prof. Jundong Li
Developed a novel fairness method for Graph Neural Networks (GNNs) that focuses on ensuring individual fairness. This method, integrated into GNN models, significantly enhances individual fairness while retains performance.

Research Assistant — Jun. 2023-Present
Zhejiang Lab, National Lab at China
Institute of Artificial Intelligence

RESEARCH INTEREST

- **Deep learining, Machine Learning, Data Mining**
- Robustness and Stability on Neutral Networks *(e.g., my KDD'23 on Adversarial attacks of GNNs)*
- Fairness on Neutral Networks *(e.g., my ICLM'23 workshop on individual fairness of GNNs)*

PAPER

- **Yaning Jia**, Dongmian Zou, Hongfei Wang, Hjin. Enhancing Node-Level Adversarial Defenses by Lipschitz Regularization of Graph Neural Networks, *the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD**), 2023*.
- **Yaning Jia**, Chunhui Zhang. Stabilizing GNN for Fairness via Lipschitz Bounds, *New Frontiers in Adversarial Machine Learning **(AdvML@ICML)**, 2023*.
- **Yaning Jia**, Chunhui Zhang, Jundong Li, Chuxu Zhang. Characterizing Lipschitz Stability of GNN for Fairness, *on submission & extension of my AdvML@ICML'23 paper*.

SKILLS

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

ACTIVITIES

- Conference official reviewer for ICML2023 workshop, KDD2023 workshop

Latest Update: June 2023