Yaning Jia

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Huazhong University with Science and Technology (HUST), Wuhan, China

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

- Robustness against adversarial attacks, Lipschitz Stability, Individual Fairness, Trustworthy and efficient AI
- 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

 \bullet Conference official reviewer for ICML2023 workshop, KDD2023 workshop Latest Update: June 2023