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# **Jiaxing Zhang**

PhD Student, TA/RA

github.com/jz48 linkedin.com/in/jiaxing-zhang-45593b156

SKILLS

**Tools and Languages** Python, C++, PyTorch, Linux, Git, ETFX

**Machine Learning** Natural Language Processing, Code Analysis, Graph Neural Network, Explainable AI, Information Theory,

Time series

Communication English, Chinese

#### RESEARCH EXPERIENCE

## PhD Student / Explainable AI on Graph Neural Network

New Jersey Institute of Technology, Lab DaRL, under the supervision of Dr. Hua Wei

Sep. 2022 — Present Newark, NJ

- Explainable AI on GNNs, data mining, and data augmentation.
- · Graph neural networks and graph-structure data.
- · Information Theory, Graph information bottleneck.
- · Large language model, prompt engineering.

## PhD Student / Natural Language Processing

New Jersey Institute of Technology, SPACE Lab

Sep. 2020 — Jul. 2022

Newark, NJ

- · Software engineering, code analysis, and large language model/pre-trained language model.
- Code parsing, code graph building including AST/CFG/DFG/PDG on java/c/c++/python, etc.
- Embedding technologies, including BERT, CodeBERT, Word2Vec, etc.
- Big data (large code/text corpus) collecting, cleaning, and processing.

## Student Intern / Computer Vision, Time-Sequential Data

University of Minnesota Twin Cities, Park Lab

May. 2019 — Jul. 2019 Minneapolis, MN

• 3D point cloud object reconstruction from multi-video streams.

#### Student Intern / Indoor localization, Time-Sequential Data

Xian Jiaotong University, Big Data and Smart Sense Lab

Sep. 2017 — Dec. 2018

Xi'an, Shaanxi

- Indoor localization with complex topography.
- · Fourier transform, etc.

#### EDUCATION

PhD student in Informatics, New Jersey Institute of Technology	Sep. 2021 — Jul.2025
PhD student in Informatics, Work Remotely, New Jersey Institute of Technology	Sep. 2020 — Jul.2021
Bachelor of Computer Science, Xi'an Jiaotong University	Sep. 2016 — Jul.2020
Exchange student in University of Minnesota Twin Cities	Jan. 2019 — Jul. 2019
Summer School in University of Alberta, Edmonton, Alberta, Canada	Jul. 2017 — Aug. 2017

#### **PUBLICATIONS**

- Jiaxing Zhang, Dongsheng Luo, Hua Wei. 2023. MixupExplainer: Generalizing Explanations for Graph Neural Networks with Data Augmentation. In Proceedings of the 29th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining.
- Jiaxing Zhang, Zhuomin Chen, Hao Mei, Dongsheng Luo, Hua Wei. 2023. RegExplainer: Generating Explanations for Graph Neural Networks in Regression Task. Accepted by Learning on Graphs Conference 2023.
- Yi Li, Aashish Yadavally, Jiaxing Zhang, Shaohua Wang, Tien Nguyen. 2023. Commit-level, Neural Vulnerability Detection and Assessment. Accepted by ESEC/FSE 2023.
- Yi Li, Aashish Yadavally, Jiaxing Zhang, Shaohua Wang, Tien Nguyen. 2023. DeMinify: Neural Variable Name Recovery and Type Inference. Accepted by ESEC/FSE 2023.

### **ACTIVITIES**

President of Chinese Students and Scholars Association (CSSA) @ New Jersey Institute of Technology (NJIT) Mathematical Contest in Modeling (MCM)