



Liangliang Zhang

 github.com/liangliang6v6  zhangl41@rpi.edu

EDUCATION

Rensselaer Polytechnic Institute, Troy, USA

August 2024 -

Ph.D. in Computer Science

Central South University, Changsha, China

September 2022 - June 2024

B.S. in Software Engineering

COURSEWORK

Courses: Object-Oriented Programming, Data Structures & Algorithms, Embedded Systems, Discrete Math, Linear Algebra, Calculus, Physics, Probability & Statistics

Awards: Academic year Scholarship of School of Computer Science, Central South University (4x)

BIOGRAPHY

Liangliang Zhang is a Ph.D. student in the Department of Computer Science at Rensselaer Polytechnic Institute (RPI), supervised by Dr. Yao Ma. Her research focuses on the intersection of machine learning and graph theory, with a particular emphasis on Graph Neural Networks and their applications. She is dedicated to ensuring the safety and trustworthiness of machine learning, addressing issues such as robustness, fairness, and privacy in AI systems. Liangliang also serves as the web chair for several workshops, including the WWW'24 DCAI Workshop and the SDM'24 DSSMH Workshop.

PUBLICATION

CONFERENCE AND JOURNAL PUBLICATIONS

- [1] T. Zhao, **Zhang, Liangliang**, Y. Ma, and L. Cheng. "A Survey on Safe Multi-Modal Learning System". In: *In Proceedings of the 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining(SIGKDD)* (2024). ***Liangliang Zhang** contributed equally to this work.
- [2] **Zhang, Liangliang**, M. Chen, X. Hu, and L. Deng. "Graph Convolutional Network and Contrastive Learning Small Nucleolar RNA (snoRNA) Disease Associations (GCLSDA): Predicting snoRNA–Disease Associations via Graph Convolutional Network and Contrastive Learning". In: *International Journal of Molecular Sciences* 24.19 (2023), p. 14429.
- [3] S. Wang, **Zhang, Liangliang**, and H. Fan. "An Enhanced Multi-Constraint Optimization Algorithm for Efficient Network Topology Generation". In: *Mathematics* 11.16 (2023), p. 3456.

PREPRINTS AND SUBMISSIONS

- [4] H. Xu, **Zhang, Liangliang**, Y. Ma, S. Zhou, Z. Zheng, and B. Jiajun. "A Survey on Graph Condensation". In: *arXiv preprint arXiv:2402.02000* (2024).

RESEARCH EXPERIENCE

Competitive Programming Club | *Team Member*

July 2022 – September 2023

Research on Data Mining and Graph Neural Networks and Bioinformatics.

Big Data Computing and Intelligent Software System | *Team Member*

September 2021 - September 2022

Researched and implemented swarm intelligence algorithms for resource scheduling.

Institute of Automation, Chinese Academy of Sciences

March - September 2023

- Developed proficiency with Linux and Docker operating systems.
- Participated in deep learning algorithm interface debugging and implemented white box and black box attack algorithms.
- Conducted in-depth research on deep learning algorithm attacks and applied methods to target systems, optimizing CW attacks and implementing AutoAttack and CopyCAT algorithms.

Hunan Wuche Education Technology Co., Ltd.

August - September 2022

- Collaborated in designing an online tank battle game using JavaFX and the FXGL game engine.
- Led project design, function design, reference searches, and delivered presentations.
- Gained expertise in Java programming, including interface design, JDBC, MySQL, Javax.mail, and session creation.

China Hi-Tech Group

June - July 2022

- Designed an electronic shopping mall app with Vue for front-end and SpringBoot for back-end development.
- Managed program design, organized team meetings, coordinated tasks, and presented progress reports.
- Acquired web development skills, including SpringBoot, Vue, MyBatis, MyBatis Plus, and JavaScript.

Guangdong QST Green Soft Training Education Technology Co., Ltd. (Remote)

June - July 2022

- Designed an online Gomoku game using C++.
- Implemented features such as user login, registration, points ranking, game settings, background music, and three battle modes. Enhanced C++ programming language knowledge and skills.