

# Guibin Zhang

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## Education

4.73/5.0 **Bachelor of Data Science**

2021-2025 (expected)

**Courses:** Probability and Statistics | Combinatorics | Data Structure and Algorithm | Stochastic Process | Data Mining | Machine Learning | Neural Networks and Deep Learning | Exploratory Data Analysis | Web Data and Analysis

## Publications

### Graph Lottery Ticket Automated

The Twelfth International Conference on Learning Representations (**ICLR'24 Poster**)

**Guibin Zhang**, Kun Wang, Wei Huang, Yanwei Yue, Yang Wang, Roger Zimmermann, Aojun Zhou, Dawei Cheng, Jin Zeng<sup>‡</sup>, Yuxuan Liang<sup>‡</sup>

### Two Heads Are Better Than One: Boosting Graph Sparse Training via Semantic and Topological Awareness

The Forty-first International Conference on Machine Learning (**ICML'24**)

**Guibin Zhang**, Yanwei Yue, Kun Wang, Junfeng Fang, Yongduo Sui, Kai Wang, Yuxuan Liang, Dawei Cheng, Shirui Pan, Tianlong Chen

### Fortune favors the invariant: Enhancing GNNs' generalizability with Invariant Graph Learning

Knowledge-based Systems (**KBS**; JCR Q1, IF: 8.8)

**Guibin Zhang**, Yiqiao Chen, Shiyu Wang, Kun Wang<sup>‡</sup>, Junfeng Fang<sup>‡</sup>

### NuwaDynamics: Discovering and Updating in Causal Spatio-Temporal Modeling

The Twelfth International Conference on Learning Representations (**ICLR'24 Spotlight**)

Kun Wang<sup>†</sup>, Hao Wu<sup>†</sup>, Yifan Duan, **Guibin Zhang**, Kai Wang, Xiaojiang Peng, Yu Zheng, Yuxuan Liang, Yang Wang

### Modeling Spatio-temporal Dynamical Systems with Neural Discrete Learning and Levels-of-Experts

IEEE Transactions on Knowledge and Data Engineering (**TKDE'24**)

Kun Wang, Hao Wu, **Guibin Zhang**, Junfeng Fang, Yuxuan Liang, Yuankai Wu, Roger Zimmermann, Yang Wang

### EXGC: Bridging Efficiency and Explainability in Graph Condensation

ACM The Web Conference (**WWW'24**)

Junfeng Fang, Xinglin Li, Yongduo Sui, Yuan Gao, **Guibin Zhang**, Kun Wang, Xiang Wang, Xiangnan He

**Under Review:** **KDD'24** submission (co-1<sup>st</sup> author); **TKDE** submission (co-1<sup>st</sup> author); Details on my personal website: <https://guibinz.top/>.

## Experience

**Hong Kong University of Science and Technology (GZ)**, [CityMind Lab](#) | Intern

Jul 2023 - Sept 2023

Advisor: [Prof. Yuxuan Liang](#)

Spatio-temporal Modeling: Exploring causality-inspired data augmentation (see [NuwaDynamics](#));

Graph Sparsification: Exploring adaptive, dynamic and automated graph sparsification (see [AdaGLT](#)).

**Tongji University**, [FinTech Lab](#) | Intern

Nov 2023 - present

Advisor: [Prof. Dawei Cheng](#)

Graph-based Fraud Detection: Utilizing GNN for temporal fraud detection (submitted to TKDE/IJCAI);

Open-source Contribution: Developing an open-source graph fraud detector repository (see [Github - Antifraud](#)).

## Skills

**Programming** Python, C/C++, Java, Matlab, Git, Scripting (Bash), LaTeX, HTML, Vim, R  
**Software** Linux, Tensorflow, Pytorch, Docker

## Achievements

2022 **National Scholarship**

Tongji University

2022 **Merit Student**

Tongji University

2023 **Second Prize in China Undergraduate Mathematical Contest in Modeling**

Shanghai

2023 **First Prize of National College Statistical Modeling Competition**

Shanghai

2023 **Third Prize of Asia and Pacific Mathematical Contest in Modeling**

Shanghai

2024 **National Champion of SAS China University Data Analysis Competition**

China

## **Academic & University Service**

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2024 **Reviewer for International Conference on Machine Learning (ICML)**

2024 **Reviewer for ACM Multimedia (ACM MM)**

2024 **Reviewer for ACM Knowledge Discovery and Data Mining (SIG KDD)**

### **Association President**

Tongji University Mathematical Modeling Association

*Feb 2023 - present*