JIE YANG

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EDUCATION

Tongji University, Shanghai

Sep. 2021 - Jul. 2025

Bachelor's Degree in Computer Science and Technology **GPA**: 4.60/5.00 (91.08/100) **TOEFL**: 100 (26/28/23/23)

RESEARCH EXPERIENCE

Summer Intern, Kaize Ding, Northwestern University

Aug. 2024 - Present

Imputation then Prediction: Revisiting Multivariate Time Series Forecasting with Missing Values

Jie Yang , Yushun Dong , Luyang Niu , Kaize Ding (KDD 2025 Submitted)

- > Designed and developed a spatial-temporal joint multivariate time series model, involving establishing spatial-temporal relationships and implementing cross-spatiotemporal correlation models.
- > Carried out testing and performance evaluation of the spatial-temporal joint multivariate time series model by applying it to real-world scenarios for validation.

FintechLab & WeChat Pay, Tongji University & Tencent, Shenzhen

Mar. 2024 - Present

Grad: Guided Relation Diffusion Generation for Graph Augmentation in Graph Fraud Detection

Jie Yang , Rui Zhang , Ziyang Cheng , Dawei Cheng , Bo Wang , Yang Guang (WWW 2025 Accepted)

- > Designed the guided diffusion auxiliary relation generative approach with semi-supervised graph contrastive learning for the accurate Graph Fraud Detection task in the finance industry scenario.
- > As the first author of the paper, I was fully responsible for the advancement of the project, literature review, experiments, and the writing of the paper.

FintechLab & WeChat Pay, Tongji University & Tencent, Shenzhen

Mar. 2024 – Present

Neighbor-enhanced Graph Pre-training and Prompt Learning Framework for Fraud Detection

Ziyang Cheng , Jie Yang , Yixin Song , Dawei Cheng , bo wang , Yang Guang (KDD 2025 Submitted)

- > Proposed an efficient anti-fraud graph pre-train and prompt learning framework with neighbor-enhanced cross-domain tasks, termed AFNEC-Prompt, which can capture the overall fraud scenarios and be applied to multiple fraud tasks across different transaction graphs.
- > As the Co-first author of the paper, I was fully responsible for the advancement of the project, literature review, experiments, and the writing of the paper.

FintechLab, Tongji University, Shanghai

Oct. 2022 - Jan. 2024

Homophily Edge Augment Graph Neural Network for High-Class Homophily Variance Learning

 $Rui\ Zhang\ ,\ Dawei\ Cheng\ ,\ Xin\ Liu\ ,\ \textbf{\textit{Jie}\ Yang}\ ,\ Yi\ Ouyang\ ,\ Xian\ Wu\ ,\ Yefeng\ Zheng \qquad (\textbf{\textit{TPAMI\ Submitted}})$

- > Developed a theoretical analysis of homophily distribution differences in GAD, introduced a novel Heterophily Attack to simulate high CHV scenarios, and designed an innovative model for generating homophilic edges using attention mechanisms and sampling methods.
- > Responsible for part of the literature review and writing of the paper, and assisted in completing the experiments.

FintechLab, Tongji University, Shanghai

Oct. 2022 – Aug. 2023

Pre-trained Online Contrastive Learning for Insurance Fraud Detection

Rui Zhang, Dawei Cheng, Jie Yang, Yi Ouyang, Xian Wu, Yefeng Zheng, Changjun Jiang (AAAI'2024 Published)

- > Proposed a novel online learning GNN model based on contrastive learning pre-training that could accurately identify fraudulent claims and significantly attenuate the occurrence of forgetting previous knowledge when paired with the Temporal MAS method.
- > Responsible for part of the literature review and writing of the paper, and assisted in completing the experiments.

AWARDS

- Third-class (Dec. 2022): 2021-2022 Tongji University Outstanding Student Scholarship
- Second-class (Dec. 2023): 2022-2023 Tongji University Outstanding Student Scholarship
- Second Prize (Dec. 2023): The National Finals of the 5th Global Campus Artificial Intelligence Algorithm Elite Competition
- First Prize (Apr. 2023): The 14th Blue Bridge Cup National Software and Information Technology Professionals Competition Shanghai Division C/C++ Programming University Group A