YIWEI WANG

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WORK

Postdoc at UCLA   Sep. 2023 - Now

I do research on the Controllable Generation of Large Language Models advised by Prof. Kai-Wei Chang and Prof. Nanyun Peng.

Applied Scientist in Amazon   Sep. 2022 - Sep. 2023

I mainly developed two fraud detection solutions: 1) a graph learning model to detect ring of abuse sellers; 2) a transformer model to detect fraud sellers from the seller-wise historical events.

EDUCATION

Doctor of Philosophy in Computer Science   Jul. 2019 - Mar. 2023

National University of Singapore

Master of Philosophy in Electronic and Computer Engineering   Aug. 2017 - Jun. 2019

Hong Kong University of Science and Technology

Bachelor of Science in Information Engineering   Aug. 2013 - Jun. 2017

Southeast University, **GPA: 3.92/4.0, Rank: 5/218 (Top 3%)**

RESEARCH PUBLICATION

Yiwei Wang, Yujun Cai, Muhao Chen, Yuxuan Liang, Bryan Hooi. Primacy Effect of ChatGPT, *The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP) 2023.*

Yiwei Wang, Bryan Hooi, Fei Wang, Yujun Cai, Yuxuan Liang, Wenxuan Zhou, Jing Tang, Manjuan Duan, Muhao Chen. How Fragile is Relation Extraction under Entity Replacements?, *The SIGNLL Conference on Computational Natural Language Learning (CONLL) 2023.*

Yiwei Wang, Bryan Hooi, Yozen Liu, Tong Zhao, Zhichun Guo, Neil Shah. Flashlight : Scalable Link Prediction with Effective Decoders, *Proceedings of the Learning on Graphs Conference (LOG) 2022.*

Yiwei Wang, Yujun Cai, Yuxuan Liang, Henghui Ding, Changhu Wang, and Bryan Hooi. Time-Aware Neighbor Sampling on Temporal Graphs, *The 2022 International Joint Conference on Neural Networks (IJCNN) 2022.*

Yiwei Wang, Muhao Chen, Wenxuan Zhou, Yujun Cai, Yuxuan Liang, Dayiheng Liu, Baosong Yang, Juncheng Liu, and Bryan Hooi. Should We Rely on Entity Mentions for Relation Extraction? Debiasing Relation Extraction with Counterfactual Analysis, *Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) 2022.*

Yiwei Wang, Muhao Chen, Wenxuan Zhou, Yujun Cai, Yuxuan Liang, and Bryan Hooi. GraphCache: Message Passing as Caching for Sentence-Level Relation Extraction, *Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) Findings 2022.*

Yiwei Wang, Yujun Cai, Yuxuan Liang, Henghui Ding, Changhu Wang, Siddharth Bhatia, and Bryan Hooi. Adaptive Data Augmentation on Temporal Graphs, *Neural Information Processing Systems (NeurIPS) 2021.*

Yiwei Wang, Wei Wang, Yuxuan Liang, Yujun Cai, and Bryan Hooi. Mixup for Node and Graph Classification, *The Web Conference (WWW) 2021*. (Acceptance Rate: 20.6%)

Yiwei Wang, Wei Wang, Yuxuan Liang, Yujun Cai, and Bryan Hooi. CurGraph: Curriculum Learning for Graph Classification, *The Web Conference (WWW) 2021*. (Acceptance Rate: 20.6%)

Yiwei Wang, Shenghua Liu, Minji Yoon, Hemank Lamba, Wei Wang, Christos Faloutsos, and Bryan Hooi. Provably Robust Node Classification via Low-Pass Message Passing, *IEEE International Conference on Data Mining (ICDM) 2020*. (Acceptance Rate: 9.8%)

Yiwei Wang, Wei Wang, Yujun Cai, Bryan Hooi and Beng Chin Ooi. Detecting Implementation Bugs in Graph Convolutional Network based Node Classifiers, *International Symposium on Software Reliability Engineering (ISSRE) 2020*. (Acceptance Rate: 25.7%)

Yiwei Wang, Wei Wang, Yuxuan Liang, Yujun Cai and Bryan Hooi. Progressive Supervision for Node Classification, *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) 2020*. (Acceptance Rate: 19.1%)

Yiwei Wang, Wei Wang, Yuxuan Liang, Yujun Cai, Juncheng Liu and Bryan Hooi. NodeAug: Semi-Supervised Node Classification with Data Augmentation, *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2020*. (Acceptance Rate: 16.9%)

Yiwei Wang, Mark James Carman, and Yuan-Fang Li. Using Knowledge Graphs to Explain Entity Co-occurrence in Twitter. *Proceedings of the 2017 ACM on Conference on Information and Knowledge Management (CIKM) 2017*.

Baolong Bi, Shenghua Liu, **Yiwei Wang**, Lingrui Mei, Xueqi Cheng. LPNL: Scalable Link Prediction with Large Language Models, *(ACL) 2024*.

Juncheng Liu, Bryan Hooi, Kenji Kawaguchi, **Yiwei Wang**, Chaosheng Dong, Xiaokui Xiao. Scalable and Effective Implicit Graph Neural Networks on Large Graphs, *ICLR 2024*.

Xu Liu, Yutong Xia, Yuxuan Liang, Junfeng Hu, **Yiwei Wang**, Lei Bai, Chao Huang, Zhenguang Liu, Bryan Hooi, Roger Zimmermann. LargeST: A Benchmark Dataset for Large-Scale Traffic Forecasting, *Neural Information Processing Systems (NeurIPS) 2023*.

Yuxuan Liang, Yutong Xia, Songyu Ke, **Yiwei Wang**, Qingsong Wen, Junbo Zhang, Yu Zheng, and Roger Zimmermann. AirFormer: Predicting Nationwide Air Quality in China with Transformers, *The Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI) 2023*.

Yuxuan Liang, Kun Ouyang, **Yiwei Wang**, Zheyi Pan, Yifang Yin, Hongyang Chen, Junbo Zhang, Yu Zheng, David S. Rosenblum and Roger Zimmermann. Mixed-Order Relation-Aware Recurrent Neural Networks for Spatio-Temporal Forecasting, *IEEE Transactions on Knowledge and Data Engineering (TKDE), 2022*.

Yuxuan Liang, Kun Ouyang, **Yiwei Wang**, Xu Liu, Hongyang Chen, Junbo Zhang, Yu Zheng and Roger Zimmermann. TrajFormer: Efficient Trajectory Classification with Transformers, *31st ACM International Conference on Information and Knowledge Management (CIKM), 2022*.

Juncheng Liu, **Yiwei Wang**, Bryan Hooi, Renchi Yang, Xiaokui Xiao. LSCALE: Latent Space Clustering-Based Active Learning for Node Classification, *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) 2022*.

Juncheng Liu, Zequn Sun, Bryan Hooi, **Yiwei Wang**, Dayiheng Liu, Baosong Yang, Xiaokui Xiao, and Muhao Chen. Dangling-Aware Entity Alignment with Mixed High-Order Proximities. *Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) Findings 2022.*

Juncheng Liu, Kenji Kawaguchi, Bryan Hooi, **Yiwei Wang**, Xiaokui Xiao. EIGNN: Efficient Infinite-Depth Graph Neural Networks, *Neural Information Processing Systems (NeurIPS) 2021.*

Yujun Cai, **Yiwei Wang**, et al. A Unified 3D Human Motion Synthesis Model via Conditional Variational Auto-Encoder, *International Conference on Computer Vision (ICCV) 2021.*

Yuxuan Liang, Kun Ouyang, Hanshu Yan, **Yiwei Wang**, Zekun Tong and Roger Zimmermann. Modeling Trajectories with Neural Ordinary Differential Equations. *International Joint Conference on Artificial Intelligence (IJCAI) 2021.* (Acceptance Rate: 13.9%)

Yuxuan Liang, Kun Ouyang, Junkai Sun, **Yiwei Wang**, Junbo Zhang, Yu Zheng, David Rosenblum, and Roger Zimmermann. Fine-Grained Urban Flow Prediction. *The Web Conference (WWW) 2021.* (Acceptance Rate: 20.6%)

Siddharth Bhatia, **Yiwei Wang**, Bryan Hooi, Tanmoy Chakraborty. GraphAnoGAN: Detecting Anomalous Snapshots from Attributed Graphs, *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) 2021.*

Yujun Cai, Lin Huang, **Yiwei Wang**, et al. Learning Progressive Joint Propagation for Human Motion Prediction, *European Conference on Computer Vision (ECCV) 2020.*

Yuxuan Liang, Kun Ouyang, **Yiwei Wang**, Ye Liu, Junbo Zhang, Yu Zheng, David S. Rosenblum. Revisiting Convolutional Neural Networks for Citywide Crowd Flow Analytics. *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) 2020.* (Acceptance Rate: 19.1%)

Licheng Zhao, **Yiwei Wang**, Sandeep Kumar, and Daniel P. Palomar, Optimization Algorithms for Graph Laplacian Estimation via ADMM and MM. *IEEE Transactions on Signal Processing, 2019.*

HONORS AND AWARDS

Dean's Graduate Research Excellence Award (Highest honor of PhD students at NUS with 3 to 4 recipients per year) Jul. 2022

SDSC Dissertation Research Fellowship (10 annual quotas for Singapore-based Ph.D. Students) Mar. 2021

Research Achievement Award from School of Computing of National University of Singapore Sep. 2020

Meritorious Winner of the Interdisciplinary Contest in Modeling (ICM) held by COMAP **(7%)** Apr. 2016

National Scholarship from Ministry of Education of the People's Republic of China **(3%)**   Oct. 2015

TEACHING

Teaching Assistant, Big Data Systems for Data Science	National University of Singapore, 2021
Teaching Assistant, Programming Methodology	National University of Singapore, 2021
Teaching Assistant, Knowledge Discovery and Data Mining and 2021	National University of Singapore, 2020
Teaching Assistant, Parallel Computing	National University of Singapore, 2020
Teaching Assistant, Signal Processing and Communications	HKUST, 2018

SERVICE AS REVIEWER

- Conference on Empirical Methods in Natural Language Processing (EMNLP) 2023
- Annual Meeting of the Association for Computational Linguistics (ACL) 2023
- Learning on Graphs Conference (LOG) 2022
- The Web Conference (WWW) 2023
- International Conference on Learning Representations (ICLR) 2023
- Conference on Neural Information Processing Systems (NeurIPS) 2022
- The AAAI Conference on Artificial Intelligence (AAAI) 2021, 2022, 2023
- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2021, 2022
- International Conference on Computer Vision (ICCV) 2021, 2022
- European Conference on Computer Vision (ECCV) 2022
- International Joint Conference on Artificial Intelligence (IJCAI-ECAI) 2022, 2023
- IEEE International Conference on Multimedia and Expo (ICME) 2022
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) 2020
- International Joint Conference on Neural Network (IJCNN) 2022
- Neurocomputing
- Pattern Recognition
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IET Image Processing
- IEEE Transactions on Big Data
- Computer Science Review
- Cybernetics and Systems
- Transactions on Systems, Man and Cybernetics:Systems

ABILITIES AND SKILLS

Languages: Chinese, English (IELTS: **8.0**).

Programming: Advanced with MATLAB, Python. Familiar with C/C++, JAVA.