Tao Wen

tao.wen.gr@dartmouth.edu LinkedIn

Research Interests

Graph Learning, Trustworthy Machine Learning

Education

Sep. 2024 – present
Dartmouth College, Hanover, NH, U.S.
Ph.D. student in Computer Science, Advisor: Yujun Yan

Aug. 2022 – May 2024
New York University, New York, NY, U.S.
Master of Science in Data Science, Center for Data Science

Sep. 2018 – Jun. 2022
Renmin University of China, Beijing, China
Bachelor of Science in Data Science, School of Statistics

Research Publications

1. **T. Wen**, E. Chen, Y. Chen, and Q. Lei, "Bridging domain adaptation and graph neural networks: A tensor-based framework for effective label propagation," in *Conference on Parsimony and Learning*, B. Chen, S. Liu, M. Pilanci, *et al.*, Eds., ser. Proceedings of Machine Learning Research, vol. 280, PMLR, 24–27 Mar 2025, pp. 599–614. URL: https://proceedings.mlr.press/v280/wen25a.html.
2. **T. Wen**, Z. Wang, Q. Zhang, and Q. Lei, "Elastic representation: Mitigating spurious correlations for group robustness," in *Proceedings of The 28th International Conference on Artificial Intelligence and Statistics*, Y. Li, S. Mandt, S. Agrawal, and E. Khan, Eds., ser. Proceedings of Machine Learning Research, vol. 258, PMLR, Mar. 2025, pp. 541–549. URL: https://proceedings.mlr.press/v258/wen25a.html.
3. **T. Wen**, E. Chen, and Y. Chen, "Tensor-view topological graph neural network," in *Proceedings of The 27th International Conference on Artificial Intelligence and Statistics*, S. Dasgupta, S. Mandt, and Y. Li, Eds., ser. Proceedings of Machine Learning Research, vol. 238, PMLR, Feb. 2024, pp. 4330–4338. URL: https://proceedings.mlr.press/v238/wen24a.html.

Experiences

Research

May 2024 – Oct. 2024
Mitigating Spurious Correlations for Group Robustness
Proposed Elastic Representation to address spurious correlations and improve worst-group accuracy without a severe sacrifice of overall accuracy.

Aug. 2023 – Jan. 2024
Domain Adaptive Graph Classification via Label Propagation
Developed an approach for domain adaptive graph classification and bridged traditional domain adaptation methods and graphs.

Mar. 2023 – Aug. 2023
Tensor-view Topological Graph Neural Network
Developed the first approach bridging tensor methods with multi-modal graph structural features.

Experiences (continued)

Internship

Mar. 2022 – Jul. 2022

Machine Learning Engineer, ByteDance, Beijing, China
Collaboratively developed a model with two teammates to predict user Life-Time Values across six apps, each with significantly different data sizes and distributions, for targeted advertisement on a petabyte scale.
Improved the composite six-in-one model (trained on data from six apps and individually evaluated on each) to surpass the performance of single-app models by up to 2% in regression AUC.

Teaching

Jan. 2025 – Mar. 2025

Teaching Assistant, Department of Computer Science, Dartmouth College
Served as the teaching assistant for COSC 74/274: Machine Learning.
Gave homework tutorials and held office hours.

Sep. 2023 – Dec. 2023

Section Leader, Center for Data Science, New York University
Served as the section leader for DS-GA 1018: Probabilistic Time Series Analysis.
Led lab sections on the implementation of essential time series methods and held office hours.

Awards

2018-2021 **Academic Excellence Award**, Renmin University of China, 3x recipient.

2019-2020 **Xin-Shan Academic Excellence Award**, top 10% undergraduates university-wide.

2020 **Meritorious winner of Mathematical Contest in Modeling**, top 6% in 13749 teams.