Yu Wang

CONTACT INFORMATION	Office: 337 Deschutes Hall 1585 E 13th Ave Eugene, OR 97401	Personal Homepage: https://yuwang0103.github.io/ LinkedIn: https://www.linkedin.com/in/YuWangGraphML/ Lab Website: https://kindlab-fly.github.io/ Twitter: https://twitter.com/YuWVandy
	E-mail: yuwang@uoregon.edu	Google Scholar: https://scholar.google.com/citations?user=XPCmiz4AAAAJ

BIO

Yu Wang is an Assistant Professor in the Department of Computer Science at the University of Oregon, leading the Knowledge Intelligence for Discovery and Decision-making Lab (KIND) with 3 Ph.D. students, 2 M.S. students, and 1 B.S. student. Before that, he received his Ph.D. in the Computer Science Department at Vanderbilt University under the supervision of Dr. Tyler Derr.

Yu conducts research in the areas of data mining and machine learning, with emphasis on graph theory and network analysis, neural-symbolic learning, and structured knowledge intelligence. His work has been heavily in data-centric graph machine learning, structured retrieval-augmented generation for social good applications in document intelligence, personalization, and complex-networked systems. He received numerous honors and awards, including Best Dissertation Award Honorable Mention at KDD 2025, the sole recipient of Vanderbilt's Graduate Leadership Anchor Award for Research in 2023, the 2023-2024 Recipient of the Vanderbilt Outstanding Doctoral Student Award, the Best Paper Award in 2020 Smokey Mountain Data Challenge Competition by ORNL, first-author of Vanderbilt's C.F.Chen Best Paper Award in 2022, first-author of the Best Paper Award at GLFrontiers Workshop at Neurips'23, Best Doctoral Forum Poster Runner-ups at SDM'24, along with two of his works being selected among the top-10 Most Influential CIKM'22 and WWW'23 Papers by Paper Digest. He actively contributed to top conferences/journals in the field of data mining and machine learning, both in terms of publishing such as NeurIPS, ICLR, AAAI, KDD, NAACL, ACL, WWW, COLM, CIKM, WSDM, TKDD, TIST, and serving as a PC member/reviewer/organizer, such as NeurIPS, KDD, ICML, AAAI (ICWSM), WWW, WSDM, CIKM, TKDD, and TNNLS. He has contributed to organizing workshops in KDD'25 and WSDM'22/24, presenting tutorials in SDM'24/CIKM'24/SDM'25, and chairing the travel award program at CIKM'24. For more details, please visit his website at https://yuwang0103.github.io/

POSITIONS

Tenure Track Assistant Professor, University of Oregon Department of Computer Science	Sep 2024- Present
Teaching and Research Assistant, Ph.D., Vanderbilt University Department of Computer Science	Aug 2019 – Aug 2024

EDUCATION

Vanderbilt University

Master and Doctor of Philosophy (**Ph.D.**) in Computer Science — May 2024
- Master Degree Awarded in May 2024
- Dissertation: Data-quality-aware Graph Machine Learning
- Advisor: Dr. Tyler Derr
- Research areas: Data-centric Graph Machine Learning, Responsible Graph Machine Learning, Machine Learning for Social Goodness, including Chemistry/Infrastructure/Information Retrieval
- Cumulative GPA: 3.95 / 4.00

Harbin Institute of Technology

Bachelor of Engineering (**B.E.**) — May 2019
- Thesis: Machine Learning for Bridge Crack Detection
- Advisor: Dr. Qingfei Gao
- Cumulative GPA: 4.0 / 4.0, Rank: 1/92
- First-class People's Scholarship×4, National Scholarship×2

RESEARCH EXPERIENCE

Network and Data Science Lab, Vanderbilt University   Dec 2020 –Aug 2024

Ph.D. Program, Research/Teaching Assistant
- Research Interests: Data mining, Machine Learning, Network Analysis, Graph Neural Networks (GNNs)
    - Data-centric Graph Machine Learning (Structure/Imbalance/Limited Data).
    - Multi-Purpose-Driven Graph Machine Learning (Fairness/Diversity/Reliability).
    - Graph-ML for Chemistry/Infrastructure/Information Retrieval Systems
- Publications: ICLR×2, NeurIPS, KDD×3, WWW×3, AAAI×4, WSDM×2, CIKM×4, ICDMW, LOG, Book-Chapter, TKDD, TKDE, TIST
- Mentor/Advisor: Dr. Tyler Derr

Document Intelligence Team, Adobe Research   May 2023 – Dec 2023

Research Scientist/Engineer Intern
- Project-1: Knowledge Graph Prompting for Multi-Document Question Answering [paper][demo][news]
- Project-2: Fairness in GNNs [paper]
- Project-3: Graph Verbalization via Topological-aware Positional Encoding [paper]
- Mentors: Dr. Nedim Lipka, Dr. Ryan Rossi, Dr. Alexa Siu, Dr. Ruiyi Zhang, Manager: Dr. Tong Sun

Recommendation Data Science Team, The Home Depot   May 2022 – Aug 2022

Research Data Scientist
- Project-1: Knowledge Graph-enhanced Session Recommendation [paper]
- Project-2: Prototyping the Knowledge Graph-enhanced Session Recommendation Framework in A/B test.
- Mentors: Dr. Amin Javari, Dr. Walid Shalaby, Manager: Dr. Xiquan Cui

Hiba Baroud Research Group, Vanderbilt University   Aug 2019 – Dec 2020

Ph.D. Program, Research/Teaching Assistant
- Research Interests: Graph Theory, Machine Learning, Statistical Network Models
    - Resilience and Risk Analysis of Infrastructure Networks
- Publications: IEEE System Journal/ESREL/SMC2020 Data Competition [news]
- Mentors: Dr. Hiba Baroud, Dr. Jinzhu Yu

Taciroglu Research Group, UCLA-CSST   Jul 2019 – Sep 2019

Undergraduate Summer Researcher
- Project: Designing a modeling analysis tool for automatic bridge generation [poster]
- Mentors: Dr. Ertugrul Taciroglu, Dr. Barbaros Cetiner

Qingfei Gao Research Group, Harbin Institute of Technology   Oct 2018 – Jul 2019

Undergraduate Researcher
- Project: Improving the existing percolation-based algorithm for bridge crack detection [paper]
- Mentors: Dr. Qingfei Gao

HONORS & AWARDS

• Best Dissertation Award Honorable Mention at KDD'25	Aug 2025
• Outstanding Reviewer at Applied Data Science Track at ECML-PKDD'24	Dec 2024
• Best Doctoral Forum Poster Runner-Up at SDM'24	Apr 2024
• Vanderbilt Outstanding Doctoral Student Award	Feb 2024
• Best Paper Award at GLFrontiers Workshop in Neurips'23	Dec 2023
• Vanderbilt Graduate Leadership Anchor Award for Research	May 2023
• Vanderbilt's C.F.Chen Best Paper Runner-up Award (as co-author)	May 2023
• American Bureau of Shipping Scholarship Award	Jan 2023
• NSF Student Travel Award (To attend ICDM'22)	Nov 2022
• SIGIR Student Travel Grant (To attend CIKM'22)	Nov 2022
• NSF Student Registeration&Travel Award (To attend KDD'22/SDM'21)	Jun 2022 Mar 2021
• Vanderbilt's C.F.Chen Best Paper Award	Apr 2022
• IJCAI'20/21 Volunteers & Grants Program	Aug 2020/2021
• Vanderbilt University Graduate School Travel Grant	Oct 2020 Nov 2022
• Best Paper Award in 2020 Smoky Mountain Data Challenge Competition by ORNL	Sep 2020
• Outstanding Research and Presentation Skills Award by UCLA-CSST Program	Aug 2018
• First-class People's Scholarship×4	Sep 2016 Apr 2017 Sep 2017 Apr 2018
• National Scholarship×2	Sep 2016 Sep 2017
• Second Prize in the National College Student Mathematics Competition	Sep 2017

FUNDING

[F1] Collaborative Research-Towards Well-Rounded Graph Retrieval for Retrieval-Augmented Generation
- **Team:** Dr. Yu Wang (Lead), Dr. Tyler Derr
- **Agency:** NSF-IIS-III Core-Program
- **Award Amount:** $400k, my share $200k
- **Project Period:** 08/01/25-07/31/28

PUBLICATIONS

Please note the following symbols below to signify certain author types in the below lists:

*	denotes co-first authors
†	denotes *graduate student mentored* by Yu Wang
††	denotes *undergraduate researcher/intern mentored* by Yu Wang

Conference Papers (acceptance based on peer review of full paper):

[C27] Yongjia Lei†, Haoyu Han, Ryan A Rossi, Franck Dernoncourt, Nedim Lipka, Mahantesh M Halappanavar, Jiliang Tang, **Yu Wang**. "Mixture of Structural-and-Textual Retrieval over Text-rich Graph Knowledge Bases." 2025
Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics
Acceptance Rate 37%
[Paper][Code]

[C26] Dang Nguyen, Viet Dac Lai, Seunghyun Yoon, Ryan A. Rossi, Handong Zhao, Ruiyi Zhang, Puneet Mathur, Nedim Lipka, **Yu Wang**, Trung Bui, Franck Dernoncourt, Tianyi Zhou "DynaSaur: Large Language Agents Beyond Predefined Actions." 2025
Second Conference on Language Modeling
Acceptance Rate 32%
[Paper][Code]

[C25] Yu Xia, Subhojyoti Mukherjee, Zhouhang Xie, Junda Wu, Xintong Li, Ryan Aponte, Hanjia Lyu, Joe Barrow, Hongjie Chen, Franck Dernoncourt, Branislav Kveton, Tong Yu, Ruiyi Zhang, Jiuxiang Gu, Nesreen K. Ahmed, **Yu Wang**, Xiang Chen, Hanieh Deilamsalehy, Sungchul Kim, Zhengmian Hu, Yue Zhao, Nedim Lipka, Seunghyun Yoon, Ting-Hao Kenneth Huang, Zichao Wang, Puneet Mathur, Soumyabrata Pal, Koyel Mukherjee, Zhehao Zhang, Namyong Park, Thien Huu Nguyen, Jiebo Luo, Ryan A. Rossi, Julian McAuley."From Selection to Generation: A Survey of LLM-based Active Learning." 2025
Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics
Acceptance Rate 37%
[Paper]

[C24] Xueqi Cheng†, Catherine Yang, Yuying Zhao, **Yu Wang**, Hamid Karimi, Tyler Derr. "BTS: A Comprehensive Benchmark for Tie Strength Prediction." 2025
Proceedings of the 31th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD), Toronto, Canada, 2025.
[Paper][Code]

[C23] **Yu Wang**, Ryan A Rossi, Namyong Park, Nesreen K Ahmed, Danai Koutra, Franck Dernoncourt, Tyler Derr. "Demystifying the Power of Large Language Models in Graph Generation" 2024.
2025 Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL'25), Albuquerque, New Mexico
Acceptance Rate 37%
[Paper][Code]

[C22] **Yu Wang**, Ryan A. Rossi, Namyong Park, Huiyuan Chen, Nesreen K. Ahmed, Puja Trivedi, Franck Dernoncourt, Danai Koutra, Tyler Derr. "Large Graph Generative Models".
International Conference on Learning Representation (ICLR'25), Singapore
Acceptance Rate 32.08%
[Paper][Code][Demo]

[C21]   Bo Ni[†], **Yu Wang**, Lu Cheng, Erik Blasch, Tyler Derr. "Towards Trustworthy Knowledge Graph Reasoning: An Uncertainty Aware Perspective" 2024. The 39th AAAI Conference on Artificial Intelligence (AAAI), 2025
Acceptance Rate 23.4%
[Paper][code]

[C20]   Xueqi Cheng[*,†], **Yu Wang**[*], Yuying Zhao[†], Charu Aggarwal, and Tyler Derr. "Edge Classification: New Directions in Topological Imbalance" The 18th ACM International Conference on Web Search and Data Mining (WSDM), 2025.
Acceptance rate 17.3%
[Paper][Code]

[C19]   Yunchao Liu[†], Ha Dong, Xin Wang[†], Rocco Moretti, **Yu Wang**, Zhaoqian Su, Jiawei Gu, Bobby Bodenheimer, Charles Weaver, Jens Meiler, Tyler Derr. "WelQrate: Defining the Gold Standard in Small Molecule Drug Discovery Benchmarking" 2024 Conference on Neural Information Processing Systems (NeurIPS).
Acceptance rate 25.3%
[Paper][Code][Slides][Poster]

[C18]   **Yu Wang**, Nedim Lipka, Ruiyi Zhang, Alexa Siu, Yuying Zhao[†], Bo Ni[†], Xin Wang[†], Ryan Rossi, Tyler Derr. "Augmenting Textual Generation via Topology Aware Retrieval" Proceedings of the 33th ACM International Conference on Information and Knowledge Management (CIKM), 2024
Acceptance rate 23.00%
[Paper][Code][Slides][Poster]

[C17]   **Yu Wang**, Jin-Zhu Yu, Hiba Baroud. "A Bayesian Approach to Reconstructing Interdependent Infrastructure Networks from Cascading Failures." 14th International Conference on Applications of Statistics and Probability in Civil Engineering, 2023.
[Paper]

[C16]   **Yu Wang**, Amin Javari, Janani Balaji, Walid Shalaby, Tyler Derr, Xiquan Cui "Knowledge Graph-Based Sequential Recommendation with Session-Adaptive Propagation." In Proceedings of the ACM Web Conference (TheWebConf - Industry Track), 2024.
Acceptance Rate 21.30%,

[C15]   Yuying Zhao[†], Minghua Xu, Huiyuan Chen, Yuzhong Chen, Yiwei Cai, Rashidul Islam, **Yu Wang**, Tyler Derr. "Can One Embedding Fit All? A Multi-interest Learning Paradigm Towards Improving User Interest Diversity Fairness." In Proceedings of the ACM Web Conference (TheWebConf - Research Track), 2024.
Acceptance Rate 20.20%,

[C14]   **Yu Wang**, Tong Zhao, Yuying Zhao[†], Yunchao Liu[†], Xueqi Cheng[†], Neil Shah, Tyler Derr. "A Topological Perspective on Demystifying GNN-based Link Prediction Performance." 2024. International Conference on Learning Representation (ICLR'24)
[Paper][Code]

[C13]   **Yu Wang**, Nedim Lipka, Ryan Rossi, Alexa Siu, Ruiyi Zhang, Tyler Derr "Knowledge Graph Prompting for Multi-Document Question Answering." The 38th AAAI Conference on Artificial Intelligence (AAAI), Vancouver, Canada, 2024
Acceptance Rate 23.75%, **Best Paper Award at GLFrontiers Workshop in Neurips'23**
[Paper][Code][Slides][Poster]

[C12]   Yuying Zhao[†], **Yu Wang**, Yi Zhang, Pamela Wisniswski, Charu Aggarwal, and Tyler Derr. "Fair online dating recommendations for sexually fluid users via leveraging opposite gender interaction ratio." The 38th AAAI Conference on Artificial Intelligence (AAAI), Vancouver, Canada, 2024
Acceptance Rate 24.20%
[Paper]

[C11]   **Yu Wang**, Yuying Zhao[†], Yi Zhang[†], and Tyler Derr. "Collaboration-aware Graph Convolutional Networks for Recommender Systems." In Proceedings of the ACM Web Conference (TheWebConf), Austin, TX, USA, April 30 - May 4, 2023.
Acceptance Rate 19.2%, **Top-10 most influential paper in WWW'23**
[Paper][Code][Slides]

[C10]   Yuying Zhao[†], **Yu Wang** and Tyler Derr. "Fairness and Explainability: Bridging the Gap Towards Fair Model Explanations." The 37th AAAI Conference on Artificial Intelligence (AAAI), Washington, DC, USA, 2023.
Acceptance Rate 19.6%
[Paper][Code][Slides][Poster]

[C9]   Yunchao Liu[†], **Yu Wang**, Oanh Vu, Rocco Moretti, Bobby Bodenheimer, Jens Meiler and Tyler Derr. "Interpretable Chirality-Aware Graph Neural Network for Quantitative Structure-Activity Relationship Modeling in Drug Discovery." The 37th AAAI Conference on Artificial Intelligence (AAAI), Washington, DC, USA, February 7-14, 2023.
Acceptance Rate 19.6%
[Paper] [Code][Slides][Poster]

[C8]   **Yu Wang**, Yuying Zhao[†], Neil Shah, and Tyler Derr. "Imbalanced Graph Classification via GNNs on Graph of Graphs." In Proceedings of the 31th ACM International Conference on Information and Knowledge Management, Atlanta, GA, 2022.
Acceptance rate 27.51%, **Top-10 most influential paper in CIKM'22**
[Paper][Code][Slides][Poster]

[C7]   **Yu Wang**, Yuying Zhao[†], Yushun Dong, Huiyuan Chen, Jundong Li and Tyler Derr. "Improving Fairness in GNNs via Mitigating Sensitive Attribute Leakage." Proceedings of the 28th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD), Washington D.C., USA, 2022.
Acceptance rate 14.9% (Research Track)
[Paper][Code][Slides][Poster]

[C6]   Yushun Dong, Song Wang, **Yu Wang**, Tyler Derr, and Jundong Li. "On Structural Explanation of Bias in Graph Neural Networks ." Proceedings of the 28th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD), Washington D.C., USA, 2022.
Acceptance rate 14.9% (Research Track)
[Paper][Code]

[C5]   Benedek Rozemberczki, Charles Tapley Hoyt, Anna Gogleva, Piotr Grabowski, Klas Karis, Andrej Lamov, Andriy Nikolov, Sebastian Nilsson, Michael Ughetto, **Yu Wang**, Tyler Derr, Benjamin M Gyori. "ChemicalX: A Deep Learning Library for Drug Pair Scoring." Proceedings of the 28th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), Washington D.C., USA, 2022.
Acceptance rate 25.9% (Applied Track)
[Paper][Code][Slides][Poster]

[C4]   **Yu Wang**. "Fair Graph Learning with Imbalanced and Biased Data." Proceedings of the Fifteenth ACM International Conference on Web Search and Data Mining (WSDM), 2022.
[Paper][Slides]

[C3]   **Yu Wang** and Tyler Derr. "Tree Decomposed Graph Neural Network." In Proceedings of the 30th ACM International Conference on Information and Knowledge Management (CIKM), Virtual Conference, November 1-5, 2021.
Acceptance rate 21.7%
[Paper][Code][Slides][Poster]

[C2]   **Yu Wang**, Jinzhu Yu, and Hiba Baroud. "Quantifying the Interdependency Strength Across Critical Infrastructure Systems Using a Dynamic Network Flow Redistribution Model." Proceedings of the 30th European Safety and Reliability Conference, 2020.
[Paper]

[C1] Ao Qu[††], **Yu Wang**, Yue Hu, Yanbing Wang, and Hiba Baroud. "A Data-Integration Analysis on Road Emissions and Traffic Patterns." Smoky Mountains Computational Sciences and Engineering Conference. Springer, 2020.
Best Paper Award
[Paper]

Book Chapters

[B1] **Yu Wang**, Wei Jin, and Tyler Derr. "Graph Neural Networks: Self-supervised Learning." In Graph Neural Networks: Foundations, Frontiers, and Applications. Springer, (2021).
[Paper]

Journal Papers

[J8] Hongjie Chen, Ryan A. Rossi, Nesreen K. Ahmed, Namyong Park, **Yu Wang**, Tyler Derr. "Edges Matter: Analyzing Graph Time-Series Representations for Temporal Networks." 2025 IEEE Transactions on Network Science and Engineering
[Paper]

[J7] Zhehao Zhang, Ryan A. Rossi, Branislav Kveton, Yijia Shao, Diyi Yang, Hamed Zamani, Franck Dernoncourt, Joe Barrow, Tong Yu, Sungchul Kim, Ruiyi Zhang, Jiuxiang Gu, Tyler Derr, Hongjie Chen, Junda Wu, Xiang Chen, Zichao Wang, Subrata Mitra, Nedim Lipka, Nesreen Ahmed, **Yu Wang**. "Personalization of Large Language Models: A Survey." 2025 Transactions on Machine Learning Research
[Paper]

[J6] Yunchao Liu[†], Rocco Moretti, **Yu Wang**, Ha Dong, Bobby Bodenheimer, Tyler Derr, Jens Meiler, "Advancements in Ligand-Based Virtual Screening through the Synergistic Integration of Graph Neural Networks and Expert-Crafted Descriptors."
Journal of Chemical Information and Modeling
[Paper]

[J5] Yi Zhang[†], Yuying Zhao[†], Zhaoqing Li, Xueqi Cheng[†], **Yu Wang**, Olivera Kotevska, Philip S. Yu, Tyler Derr. "A Survey on Privacy in Graph Neural Networks: Attacks, Preservation, and Applications" 2023.
TKDE journal
[Paper]

[J4] April Chen, Ryan A. Rossi, Namyong Park, Puja Trivedi, **Yu Wang**, Tong Yu, Sungchul Kim, Franck Dernoncourt, Nesreen K. Ahmed "Fairness-Aware Graph Neural Networks: A Survey".
TKDD journal, 2023
[Paper]

[J3] Yuying Zhao[†], **Yu Wang**, Yunchao Liu[†], Xueqi Cheng[†], Charu Aggarwal, Tyler Derr "Fairness and Diversity in Recommender Systems: A Survey"
TIST journal, 2023
[Paper]

[J2] **Yu Wang**, Jin-Zhu Yu, and Hiba Baroud. "Generating Synthetic Systems of Interdependent Critical Infrastructure Networks." IEEE System Journals (2021) Generating Synthetic Systems of Interdependent Critical Infrastructure Networks.
[Paper]

[J1] Qingfei Gao, **Yu Wang**, Jun Li, Kejian Sheng, and Chenguang Liu. "An Enhanced Percolation Method for Automatic Detection of Cracks in Bridges." Advances in Civil Engineering, 2020.
[Paper]

Preprints and Submissions

[P11]   Utkarsh Sahu[†], Zhisheng Qi[†], Yongjia Lei[†], Ryan A Rossi, Franck Dernoncourt, Nesreen K Ahmed, Mahantesh M Halappanavar, Yao Ma, **Yu Wang**. "A Graph Perspective to Probe Structural Patterns of Knowledge in Large Language Models." 2025
In Submission
[Paper]

[P10]   Li Li, Peilin Cai, Ryan A Rossi, Franck Dernoncourt, Branislav Kveton, Junda Wu, Tong Yu, Linxin Song, Tiankai Yang, Yuehan Qin, Nesreen K Ahmed, Samyadeep Basu, Subhojyoti Mukherjee, Ruiyi Zhang, Zhengmian Hu, Bo Ni, Yuxiao Zhou, Zichao Wang, Yue Huang, **Yu Wang**, Xiangliang Zhang, Philip S Yu, Xiyang Hu, Yue Zhao. "A Personalized Conversational Benchmark: Towards Simulating Personalized Conversations." 2025
In Submission
[Paper]

[P9]   Riya Ponraj[†], Ram Durairajan, **Yu Wang**. "Building Transparency in Deep Learning-Powered Network Traffic Classification: A Traffic-Explainer Framework." 2025
In Submission
[Paper]

[P8]   **Yu Wang**, Haoyu Han, Harry Shomer, Kai Guo, Jiayuan Ding, Yongjia Lei[†], Mahantesh Halappanavar, Ryan A. Rossi, Subhabrata Mukherjee, Xianfeng Tang, Qi He, Zhigang Hua, Bo Long, Tong Zhao, Neil Shah, Amin Javari, Yinglong Xia, Jiliang Tang. "Retrieval-augmented generation with graphs (GraphRAG)." 2025
Preprint
[Paper][Code]

[P7]   Kai Guo, Harry Shomer, Shenglai Zeng, Haoyu Han, **Yu Wang**, Jiliang Tang."Empowering GraphRAG with Knowledge Filtering and Integration." 2025
Submission
[Paper]

[P6]   Chien Van Nguyen, Xuan Shen, Ryan Aponte, Yu Xia, Samyadeep Basu, Zhengmian Hu, Jian Chen, Mihir Parmar, Sasidhar Kunapuli, Joe Barrow, Junda Wu, Ashish Singh, **Yu Wang**, Jiuxiang Gu, Franck Dernoncourt, Nesreen K Ahmed, Nedim Lipka, Ruiyi Zhang, Xiang Chen, Tong Yu, Sungchul Kim, Hanieh Deilamsalehy, Namyong Park, Mike Rimer, Zhehao Zhang, Huanrui Yang, Ryan A Rossi, Thien Huu Nguyen. "A survey of small language models." 2025
Preprint
[Paper]

[P5]   Haoyu Han, Harry Shomer, **Yu Wang**, Yongjia Lei, Kai Guo, Zhigang Hua, Bo Long, Hui Liu, Jiliang Tang. "RAG vs. GraphRAG: A Systematic Evaluation and Key Insights." 2025
Preprint
[Paper][Code]

[P4]   Bo Ni, Zheyuan Liu, Leyao Wang, Yongjia Lei, Yuying Zhao, Xueqi Cheng, Qingkai Zeng, Luna Dong, Yinglong Xia, Krishnaram Kenthapadi, Ryan Rossi, Franck Dernoncourt, Md Mehrab Tanjim, Nesreen Ahmed, Xiaorui Liu, Wenqi Fan, Erik Blasch, **Yu Wang**, Meng Jiang, Tyler Derr. "Towards Trustworthy Retrieval Augmented Generation for Large Language Models: A Survey." 2025
Preprint
[Paper][Code]

[P3]   Steven Au, Cameron J Dimacali, Ojasmitha Pedirappagari, Namyong Park, Franck Dernoncourt, **Yu Wang**, Nikos Kanakaris, Hanieh Deilamsalehy, Ryan A Rossi, Nesreen K Ahmed. "Personalized Graph-Based Retrieval for Large Language Models." 2025
Preprint
[Paper]

[P2]   Dang Nguyen, Jian Chen, **Yu Wang**, Gang Wu, Namyong Park, Zhengmian Hu, Hanjia Lyu, Junda Wu, Ryan Aponte, Yu Xia, Xintong Li, Jing Shi, Hongjie Chen, Viet Dac Lai, Zhouhang Xie, Sungchul Kim, Ruiyi Zhang, Tong Yu, Mehrab Tanjim, Nesreen K Ahmed, Puneet Mathur, Seunghyun Yoon, Lina Yao, Branislav Kveton, Thien Huu Nguyen, Trung Bui, Tianyi Zhou, Ryan A Rossi, Franck Dernoncourt. "Gui Agents: A Survey." 2025
Preprint
[Paper]

[P1]   **Yu Wang**, Charu Aggarwal, Tyler Derr. "Distance-wise Prototypical Graph Neural Network in Node Imbalance Classification." 2022.
Preprint
[Paper][Code]

**SYMPOSIUMS /
WORKSHOPS**

Workshops

[W10]   Yongjia Lei[†], **Yu Wang**. "Mixture of Structural-and-Textual Retrieval over Text-rich Graph Knowledge Bases." 2025
NAACL-SRW, 2025.[Paper]

[W9]   Riya Ponraj[†], Ram Durairajan, **Yu Wang**. "Building Trust in Deep Learning-Powered Network Traffic Classification: A Traffic-Explainer Framework." 2025
SDM-AI4TS, Presentation, 2025.[Paper]

[W8]   **Yu Wang**, Ram Durairajan. "Network Management with Graph Machine Learning: Challenges and Solutions." Security Datasets for AI Workshop, SECDAI, Presentations, 2024.

[W7]   **Yu Wang**. "Data-quality Aware Graph Machine Learning." International Conference on Data Mining (SDM) Doctoral Forum, SIAM, Poster, 2024. **Best Poster Award Runner-ups**

[W6]   **Yu Wang**, Nedim Lipka, Ryan Rossi, Alexa Siu, Ruiyi Zhang, Tyler Derr. "Knowledge Graph Prompting for Multi-Document Question Answering" GLFrontiers Workshop at NeurIPS 2023, New Orleans, LA, USA, 2023. [Paper]

[W5]   Yuying Zhao, **Yu Wang**, Yi Zhang, Pamela Wisniewski, Charu Aggarwal, and Tyler Derr. "Fair Online Dating Recommendations for Sexually Fluid Users via Leveraging Opposite Gender Interaction Ratio." 19th International Workshop on Mining and Learning with Graphs, Long Beach, CA, USA, 2023. [Paper]

[W4]   **Yu Wang** and Tyler Derr. "Degree-Related Bias in Link Prediction." IEEE International Conference on Data Mining Workshops, Orlando, FL, USA, November 28, 2022. [Paper]

[W3]   **Yu Wang**. "Overcoming Data Quality Issues of Graph Neural Networks." International Conference on Data Mining (SDM) Doctoral Forum, SIAM, Poster, 2022.

[W2]   **Yu Wang**, Charu Aggarwal, and Tyler Derr. "Distance-wise Prototypical Graph Neural Network in Node Imbalance Classification." 17th International Workshop on Mining and Learning with Graphs. [Paper][Code]

[W1]   **Yu Wang** and Tyler Derr. "Tackling Over-smoothing in Graph Neural Networks via Higher-order Neighborhood Disentanglement." International Conference on Data Mining (SDM) Doctoral Forum, SIAM, Poster, 2021.

TUTORIALS	

Empowering Retrieval-augmented Generation with Graph-structured Knowledge [Tutorial]   2024
- **Yu Wang**, Haoyu Han, Harry Shomer, Kai Guo, Yongjia Lei, Jiayuan Ding, Xianfeng Tang, Qi He, Jiliang Tang.
- SIAM International Conference on Data Mining, 2025 (SDM2025)
- Comprehensively review of retrieval-augmented generation on graph-structured data, including document, knowledge, social, reasoning&planning graphs, etc.

Data Quality-Aware Graph Machine Learning [Tutorial]   2024
- **Yu Wang**, Kaize Ding, Xiaorui Liu, Jian Kang, Ryan Rossi, and Tyler Derr.
- Proceedings of the 33th ACM International Conference on Information and Knowledge Management, 2024 (CIKM2024)
- Comprehensively review Graph data-quality issues, including topological/imbalanced/biased/noisy/weak data issues.

Data Quality-Aware Graph Machine Learning [Tutorial]   2023
- **Yu Wang**, Yijun Tian, Tong Zhao, Xiaorui Liu, Jian Kang, and Tyler Derr.
- SIAM International Conference on Data Mining (SDM24)
- Comprehensively review Graph data-quality issues, including topological/imbalanced/biased/noisy/weak data issues.

OPEN SOURCE PROJECTS	

ChemicalX: A Deep Learning Library for Drug Pair Scoring [GitHub]   2022
- Proceedings of the 28th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)
- A deep learning library for drug-drug interaction, polypharmacy side effects, and synergy prediction.
- **Received 650+ GitHub stars.**

Knowledge Graph Prompting for Multi-Document Question Answering[GitHub]   2022
- The 38th Annual AAAI Conference on Artificial Intelligence (AAAI)
- A knowledge graph prompting method for assisting LLMs in automatically answering questions over documents.
- **Received around 250 GitHub stars.**

In total, my research projects contributed 7 GitHub repositories and **received 1000+ GitHub stars**

TALKS	

Academic Talks:

[AT9]   Towards Well-Rounded Graph Retrieval-Augmented Generation   Oct 2024
Learning on Graphs, Seattle Local Meetup
University of Washington, WA

[AT8]   Data-quality-aware Graph Machine Learning for Multi-Purpose-Driven Applications   Oct 2024
Online Machine Learning Seminar
Vanderbilt University, TN

[AT7]   Data-quality-aware Graph Machine Learning   Sep 2024
Intelligent Data Engineering and Analytics Lab
University of North Texas, TX

[AT6]   Relational-aware Retrieval Augmentation for Text Generation (Remote)   May 2024
Large Language Models for Graph Learning Workshop
The World Wide Web Conference, Sentosa, Singapore

[AT5]   Data-quality-aware Graph Machine Learning   Apr 2024
Data Science for Smart Manufacturing and Healthcare Workshop
SIAM International Conference on Data Mining, Houston, TX

[AT4]   Data-quality-aware Graph Machine Learning   Feb 2024
School of Information
University of Arizona, Tucson, AZ

[AT3]   Data-quality-aware Graph Machine Learning   Feb 2024
Department of Computer Science, Data Science Center
University of Memphis, Memphis, TN

[AT2]   Data-quality-aware Graph Machine Learning   Jan 2024
Department of Computer Science and Data Science
University of Oregon, Eugene, Oregon

[AT1]   Relational-aware Retrieval Augmentation for Text Generation (Remote)   Jan 2024
Learning of Graphs at MidNorth, Notre Dame, Indiana

Industry Presentations:

[IT2]	Knowledge Graph Prompt Learning for Multi-Document QA Document Intelligence Team, Adobe Research Adobe Inc., SanJose, CA	Aug 2023
[IT1]	Knowledge Graph-based Session Recommendation Online Recommendation Data Science Team The Home Depot, Atlanta, GA	Aug 2022

Guest Lectures:

[GT4]	Welcome to Grad School Seminar Computer Science Department University of Oregon, Eugene, OR	Oct 2024
[GT3]	Graph Partitioning with Spectral Methods Social Network Analysis, Computer Science Department Vanderbilt University, Nashville, TN	Mar 2024
[GT2]	Scalability of Graph Neural Networks (GNNs) Social Network Analysis, Computer Science Department Vanderbilt University, Nashville, TN	Nov 2023
[GT1]	Measuring Node Centrality in Social Network Analysis Social Network Analysis, Computer Science Department Vanderbilt University, Nashville, TN	Oct 2021

Conference/Workshop Presentations:

[CT13]	Augmenting Textual Generation via Topology Aware Retrieval. CIKM 2024, Boise, ID	Oct 2024
[CT12]	Knowledge Graph Prompting Learning for Multi-Document QA. NeurIPS 2023, New Orleans, LA	Dec 2023
[CT11]	Collaboration-aware Graph Convolutional Networks for Recommender Systems. WWW 2023, Austin, Texas	May 2023
[CT10]	Degree-Related Bias in Link Prediction. ICDMW 2022, Orlando, FL	Nov 2022
[CT9]	Degree-Related Bias in Link Prediction. ICDMW 2022, Orlando, FL	Nov 2022
[CT8]	Imbalanced Graph Classification via Graph Neural Networks on Graph of Graphs CIKM 2022, Atlanta, GA	Nov 2022
[CT7]	Improving Fairness in GNNs via Mitigating Sensitive Attribute Leakage KDD 2022, Washington D.C.	Aug 2022
[CT6]	ChemicalX: A Deep Learning Library for Drug Pair Scoring KDD 2022, Washington D.C.	Aug 2022
[CT5]	Distance-wise Prototypical Graph Neural Network in Node Imbalance Classification KDD 2022, Washington D.C.	Aug 2022
[CT4]	Overcoming data quality issues of Graph Neural Networks SDM Doctoral Forum 2022, Virtual	Apr 2022
[CT3]	Fair Graph Representation Learning with Imbalanced and Biased Data. WSDM Doctoral Consortium 2022, Virtual	Feb 2022
[CT2]	Tree Decomposed Graph Neural Network. CIKM 2021, Virtual **Selected among the top 3/11 papers in the GNN track to give two live virtual presentations**	Nov 2021
[CT1]	Tackling Over-smoothing in GNNs via Higher-order Neighbor Disentanglement SDM Doctoral Forum 2021, Virtual	Apr 2021

PROPOSAL WRITING

[PW13] Graphing your Knowledge: A Topological Perspective on Knowledge Meaurement

PI: Yu Wang
- **Role:** Proposal focused on leveraging graph theory and network science to measure the neural knowledge of LLMs and developing a graph neural network to predict the knowledgeability based on the discovered knowledge homophily phenomenon.
- **Result:** Submitted to OpenAI Research Program Winter 2025 and currently under review.

[PW12] Risk-Averse Agent for Reliable Reasoning and Planning

PI: Yongjia Lei
- **Role:** Proposal focused on developing a risk-averse agent integrating conformal prediction and risk-averse reward action selection for reliable reasoning and planning.
- **Result:** Submitted to OpenAI Research Program Winter 2025 and currently under review.

[PW11] Graph Agentic Retrieval Workflow for Faithful Generation

PI: Dr. Yu Wang
- **Role:** Proposal focused on developing a graph agentic retrieval workflow coupled with knowledgeable homophily for a faithful generation.
- **Result:** Submitted to Cisco Research Gift Funding Winter 2025 and currently under review.

[PW10] Graph Agentic Retrieval Workflow for Intelligent Multimedia Knowledge Discovery

PI: Dr. Yu Wang
- **Role:** Proposal focused on developing a multi-agentic graph retrieval workflow for multi-media knowledge discovery.
- **Result:** Submitted to Dolby Research Award Winter 2025 and declined in 2025.

[PW9] Assessing and Predicting the U.S. Small Business Investment Company (SBIC) program: A Spatial-Temporal-aware Machine Learning Approach

PI: Dr. Yu Wang
- **Role:** Proposal focused on conducting spatial-temporal analysis with machine learning to assess and predict the U.S. Small Business Investment Company (SBIC) program.
- **Result:** Submitted to Faculty Research Award Winter 2025 at the University of Oregon and declined in 2025.

[PW9] Towards Well-Rounded Graph Retrieval for Retrieval-Augmented Generation

PI: Dr. Yu Wang
- **Role:** Proposal focused on developing a series of GraphRAG systems that improve utility, safeguard trustworthiness, and promote knowledge diversity.
- **Result:** Submitted to NSF-III Core-Program Winter 2025 and **funded** in 2025.

[PW8] Safeguard Graph Retrieval-Augmented Generation with Structure-aware Reliability and Robustness

PI: Dr. Yu Wang
- **Role:** Proposal focused on the safety of GraphRAGs by addressing reliability through a multi-hop conformal prediction framework and robustness through structure-aware adversarial attacks and adversarial training. My work ensures safer, more trustworthy deployment of GraphRAGs in real-world applications like e-commerce and healthcare.
- **Result:** Submitted to Amazon Research Award Fall 2024 and was declined in 2025.

[PW7] Trustworthy GraphRAG for Safe Coding LLMs

PI: Dr. Yu Wang
- **Role:** Propose a Graph Retrieval Augmented Generation (GraphRAG) system, which effectively retrieves the domain expertise from the world vulnerability knowledge base to automate code safety evaluation, detects vulnerabilities and provides early warnings of potential attack strategies simultaneously.
- **Result:** Submitted to Amazon Trustworthy AI challenge and was declined in 2024.

[PW6] Specializing the knowledge and Regulating Behaviors of LLMs for Recommending Systems

PI: Dr. Yu Wang
- **Role:** Specialize the Expertise of LLMs for Recommender Systems (RS) by augmenting the knowledge and regulating the behaviors of LLMs for RS.
- **Result:** Submitted to Amazon and was rejected in 2024.

[PW5] Data Quality-Aware Graph Machine Learning

PI: Dr. Tyler Derr
- **Role:** Currently designing/writing one of three research objectives on topological issues. This one specific objective is based on my dissertation topic "Data Quality-Aware Graph Machine Learning".
- **Result:** Submitted to NSF and was rejected in 2024.

[PW4] Towards Mitigating the Cold-Start Problem in Recommender Systems
PI: Dr. Tyler Derr
  - **Role:** Designed/wrote one of the two research objectives "Cold-Start Mitigation via Node Topological Concentration Augmentation." The whole proposal was based on my research [paper]
  - **Result:** Submitted to Snap Inc. and **funded** in 2023.

[PW3] CAREER: Harnessing the Positive Power of Negative Links for Network Analytics
PI: Dr. Tyler Derr
  - **Role:** Designed/wrote one of the four research objectives "Network Representation Learning with Negative Links."
  - **Result:** Submitted to National Science Foundation and **funded** in 2023.

[PW2] Fairness-aware Graph Machine Learning for Recommender Systems
PI: Yu Wang
  - **Role:** Designed/wrote the research objective "Fairness-aware Graph Machine Learning for Recommender Systems."
  - **Result:** Submitted to Nvidia Academic Hardware Grant Program and was declined in 2022.

[PW1] New Frontiers of Deep Learning on Graphs for Social Good
PI: Dr. Tyler Derr
  - **Role:** Designed and drafted the whole proposal on topics of imbalanced classification and learning with limited labeled data on graphs for applications in neuroimaging and computational drug discovery. Most of the proposal content was based on my research. [paper1][paper2]
  - **Result:** Submitted to Miscrosoft Research Faculty Fellowship and was declined in 2021.

MENTORING IN KIND LAB

K̲nowledge I̲ntelligence for D̲iscovery and D̲ecision-Making Lab (KIND), University of Oregon
Ph.D. Students
  - Yongjia Lei, Ph.D. Computer Science   Fall 2024 – Present
    - Research topic: Reasoning and Planning, Textual Graph Mining, GraphRAG, AI for Science
    - Award: SIAM Student Travel Award 2025, SDM 2025 Doctorium Forum Award, Best TA Award
    - Publication: Two journal papers, two conference papers and one workshop paper under review.
  - Riya Ponraj, Ph.D. Computer Science   Fall 2024 – Present
    - Research topic: Graph Machine Learning for Trustworthy Networking Management
    - Award: 2025 Pulse Research Fellow
    - Publication: One conference paper under review and one workshop paper under review.
  - Zhisheng Qi, Ph.D. Computer Science   Fall 2025 – Present
    - Research topic: Agentic AI, Large Language Model, Social Network Analysis
Master Students
  - Utkarsh Sahu, Master. Computer Science   Spring 2025 – Present
    - Research topic: Knowledge Checking, Large Language Model, Knowledge Graph

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MENTORING IN NDS LAB

Network and Data Science Lab, Vanderbilt University
Ph.D. Students
  - Bo Ni, Ph.D. Computer Science   Fall 2023 – Present
    - Research topic: Deep learning on graphs, knowledge graphs.
    - Project: Towards Trustworthy Knowledge Graph Reasoning: An Uncertainty Aware Perspective

  - Xueqi Cheng, Ph.D. Computer Science   Fall 2023 – Present
    - Research topic: Deep Learning on Complex Graphs, out of distribution and imbalanced learning on graphs
    - Awarded Vanderbilt IBM Fellowship Award
    - Project: Imbalanced Edge Classification by Topological Reweighting

  - Yuying Zhao, Ph.D. Computer Science   Fall 2021 – Present
    - Research topic: Data science for social good, beyond utility metrics,
    - Awarded Vanderbilt IBM Fellowship Award
    - Awarded Vanderbilt's C.F. Chen Best Paper Runner-Up Award in Computer Science in 2023
    - Co-authored Publications: AAAI'23, MloG at KDD'23

- Yunchao (Lance) Liu, Ph.D. Computer Science · Spring 2021 – Present
  - Research topic: Computer-aided drug discovery, geometric deep learning, self-supervised learning, molecular representation learning
  - Co-authored Publications: AAAI'23

M.S. Students
- Xin Wang, M.S. Computer Science, · Jan 2024 – Present
  - Research topic: Topological Graph Generative Models
  - Awarded Vanderbilt's Engineering Graduate Fellowship Award
  - Co-authored Publications: NeurIPS'24, CIKM'24

- Benjamin Van Sleen, B.S. Computer Engineering, B.S. Economics, · Dec 2020 – May 2023
  and accelerated M.S. Computer Science
  - 2021 Data Science Institute Summer Research Program (DSI-SRP) Fellow
  - Project: "Voices of Identity: Analyzing Language Use in Autism Communities on Reddit"
  - Next Position: Business Analyst at McKinsey & Company

B.S. Students
- Leyao Wang, B.S. Computer Science, B.S. Mathematics · Mar 2024 – Present
  - Nominated for CRA Outstanding Undergraduate Research Award
  - Co-authored Publications: one paper under review
- Macharia Kanyatte, B.S. Electrical and Computer Engineering · Nov 2022 – May 2023
  - Tennessee Louis Stokes Alliance Program
  - Proejct: Preprocessing signed network datasets and basic network analysis toolkit
  - Georgia Tech REU program during Summer'23
- Ao Qu, B.S. Computer Science, B.S. Economics, B.S. Mathematics · Aug 2020 – Jun 2022
  - Project: "Adaptive views in contrastive learning for GNNs"
  - **Co-authored Publication won the best paper award in fourth annual Smoky Mountain Computational Sciences and Engineering Conference**
  - Next Position: Ph.D. student at Massachusetts Institute of Technology

High School Students
- Xinran Pan · Jun 2021 – May 2022
  - Mentor the Project on Social Good and Simpson's Paradox
  - Next position: Undergraduate Student at Carnegie Mellon University

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TEACHING EXPERIENCE

University of Oregon

Lecturer, Department of Computer Science · Oct 2024 – Present
- CS 410/510: Mining and Learning on Graphs (Undergraduate/Graduate Level, Fall 2024) [Website][Evaluation]
- CS 453: Data Mining (Undergraduate/Graduate Level, Winter 2025)[Website]
- CS 610: Advanced Machine Learning (Graduate Level, Spring 2025)
- CS 607: Seminar in Geometric Machine Learning (Graduate Level, Spring 2025)

Vanderbilt University

Teaching Assistant, Department of Computer Science · Jan 2021 – Present
- CS4260: Artificial Intelligence (Undergraduate/Graduate Level, Spring 2023)
- DS5720: Social Network Analysis (Graduate Level, Fall 2022)
- CS3891/5891-03: Social Network Analysis (Undergraduate/Graduate Level, Fall 2021)

Teaching Assistant, Department of Civil and Environmental Engineering · Aug 2019 – Jan 2021
- CE3300: Risk, Reliability and Resilience Engineering (Undergraduate Level, Spring 20)
- CE2101-01: Civil Engineering Information Systems (Undergraduate Level, Fall 19)

EXTERNAL SERVICES

Workshop Organizer
- Workshop Lead-organizer, Machine Learning on Graphs in the Era of Artificial General Intelligence (MLoG-GenAI)[Website]   2025
  - Collocated at KDD'25
- Workshop Co-organizer and Web Chair, Machine Learning on Graphs (MLoG)   2024
  - Collocated at ACM WSDM'24
- Workshop Co-organizer and Web Chair, Machine Learning on Graphs (MLoG)   2022
  - Collocated at ACM WSDM'22

Conference Organizer Chairships
- Student Travel Awards Co-chair, CIKM'24   2024
  - ACM International Conference on Information and Knowledge Management

Program Committee Member
- The 19th ACM International Conference on Web Search and Data Mining (WSDM)   2026
- Association for the Advancement of Artificial Intelligence (AAAI)   2026
- The 34th ACM International Conference on Information and Knowledge Management   2025
- The 28th Artificial Intelligence and Statistics Conference (AISTATS)   2025
- The 16th Asian Conference on Machine Learning (ACML)   2025
- ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)   2025
- ACM International Conference on Web Search and Data Mining (WSDM)   2025
- Association for the Advancement of Artificial Intelligence (AAAI)   2025
- European Conference on Machine Learning and Data Mining (ECML PKDD)   2024
- SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)   2024
- Association for the Advancement of Artificial Intelligence (AAAI)   2024
- SIAM International Conference on Data Mining (SDM)   2024
- ACM International Conference on Web Search and Data Mining (WSDM)   2024
- SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)   2023
- ACM International Conference on Web Search and Data Mining (WSDM)   2023
- Association for the Advancement of Artificial Intelligence (AAAI)   2022
- SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)   2022

Conference (Sub-)Reviewer
- Neural Information Processing Systems (NeurIPS)   2025
- International Conference on Machine Learning (ICML)   2025
- AISTATS 2025 Conference Reviewers   2025
- International Conference on Learning Representation (ICLR)   2025
- Learning on Graphs Conference (LOG)   2024
- Neural Information Processing Systems   2024
- International AAAI Conference on Web and Social Media (AAAI ICWSM)   2024
- Learning on Graphs Conference (LOG)   2023
- Association for the Advancement of Artificial Intelligence (AAAI)   2023
- ACM International Conference on Web Search and Data Mining (WSDM)   2023
- International Conference on Machine Learning (ICML)   2023
- International Conference on Web and Social Media (ICWSM)   2023
- SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)   2022
- Neural Information Processing Systems (NeurIPS)   2022
- Learning on Graphs Conference (LOG)   2022
- SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)   2021
- Conference on Information and Knowledge Management (CIKM)   2021
- Advances in Social Networks Analysis and Mining (ASONAM)   2021
- SIAM International Conference on Data Mining(SDM)   2021
- International ACM Conference on Web Science (WebSci)   2021
- The Web Conference (WWW)   2021

Journal Reviewer
- Social Network Analysis and Mining   2025 – Present
- IEEE Transactions on Interactive Intelligent Systems   2024 – Present
- IEEE Transactions on Artificial Intelligence   2024 – Present
- ACM Transactions on Intelligent Systems and Technology (TIST)   2023 – Present
- IEEE Transactions on Big Data (TBD)   2023 – Present
- ACM Transactions on Knowledge Discovery from Data (TKDD)   2023 – Present
- Neural Networks   2023 – Present
- IEEE Transactions on Knowledge and Data Engineering (TKDE)   2022 – Present
- Data Mining and Knowledge Discovery (DAMI)   2022 – Present
- Journal of Combinatorial Optimization (JOCO)   2022 – Present

Grant Proposal Panelist
- National Science Foundation (NSF-GRFP Program)   2024

INTERNAL SERVICES

Department of Computer Science
- Computer Science Department Open House   May 2025
- Computer Science Department Faculty Recruiting Dinner with Alex, Kai, Jacobs Jules   Jan 2025
- Graduate Education Committee   Oct 2024- Oct 2025
- Graduate Program Handbook   Oct 2024- Oct 2025
- Gave a Talk at Welcome to CS-610 Grad School Seminar   Oct 2024

PhD Preliminary Exam Committee
- Joseph Colton   (Computer Science)   2025
- River Bartz   (Computer Science)   2025
- Chien Nguyen   (Computer Science)   2025
- Hieu Man   (Computer Science)   2025
- Nghia Ngo   (Computer Science)   2025

University of Oregon
- SCDC Executive Director Onsite Interview with Dr. Vasant Honavar   Dec 2024
- SCDC Executive Director Onsite Interview with Dr. Beth A. Plale   Dec 2024

VOLUNTEERING

Conference Volunteering
- Session chair at SDM 2025   2025
  "CP4 Graph Models and Algorithms"
- Session chair at CIKM 2024   2024
  "Graph Learning II"
- Session chair at SDM 2024   2024
  "Social Networks/Graphs"
- Session chair at ICDM 2022   2022
  "Graph Mining and Embedding"
- Volunteer at ICDM 2022   2022
- Volunteer at CIKM 2022   2022
- Volunteer at KDD 2022   2022
- Session chair at KDD 2021   2021
  "Recommender System"
- Volunteer at IJCAI 2021   2021
- Volunteer at IJCAI 2020   2020

[*CV compiled on 2025-08-07*]