

Lecheng Zheng

Postdoctoral Fellow, Executive Ph.D. Program

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EDUCATION

University of Illinois at Urbana-Champaign, Champaign, Illinois, USA

2019 – 2025

- PhD in Computer Science
- Advisor: Jingrui He

University of Kansas, Lawrence, Kansas, USA

2012 – 2016

- Bachelor of Computer Science
- Advisor: Jun (Luke) Huan

ACADEMIC AWARDS

- Presidential Postdoctoral Fellowship

2025

PUBLICATIONS

▪ Conference Papers

1. Longfeng Wu, Yao Zhou, Tong Zeng, Zhimin Peng, Bhanu Pratap Singh Rawat, **Lecheng Zheng**, Giovanni Seni, and Dawei Zhou. Bi-NAS: Towards Effective and Personalized Explanation for Recommender Systems via Bi-Level Neural Architecture Search. The IEEE International Conference on Data Mining (ICDM-2025).
2. **Lecheng Zheng***, Baoyu Jing*, Zihao Li*, Zhichen Zeng, Tianxin Wei, Mengting Ai, Xinrui He, Lihui Liu, Dongqi Fu, Jiaxuan You, Hanghang Tong, Jingrui He. PyG-SSL: A Graph Self-Supervised Learning Toolkit. ACM International Conference on Information and Knowledge Management (CIKM-2025). (*: Equal contribution).
3. Dongqi Fu, Yada Zhu, Zhining Liu, **Lecheng Zheng**, Xiao Lin, Zihao Li, Liri Fang, Katherine Tieu, Onkar Bhardwaj, Kommy Weldemariam, Hanghang Tong, Hendrik Hamann, Jingrui He. ClimateBench-M: A Multi-Modal Climate Data Benchmark with a Simple Generative Method. ACM International Conference on Information and Knowledge Management (CIKM-2025).
4. Zihao Li, **Lecheng Zheng**, Bowen Jin, Dongqi Fu, Baoyu Jing, Yikun Ban, Jingrui He, Jiawei Han. Can Graph Neural Networks Learn Language with Extremely Weak Text Supervision? The 63rd Annual Meeting of the Association for Computational Linguistics (ACL-2025).
5. **Lecheng Zheng**, John Birge, Haiyue Wu, Yifang Zhang, Jingrui He. Cluster Aware Graph Anomaly Detection. The Web Conference 2025 (WWW-2025 Oral Presentation).
6. Mengfei Lan, **Lecheng Zheng**, Shufan Ming, Halil Kilicoglu. Multi-label Sequential Sentence Classification via Large Language Model. The 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP-2024).
7. **Lecheng Zheng**, Baoyu Jing, Zihao Li, Hanghang Tong, Jingrui He. Heterogeneous Contrastive Learning for Foundation Models and Beyond. ACM: SIGKDD Conference on Knowledge Discovery and Data Mining (KDD-2024).
8. **Lecheng Zheng**, Zhengzhang Chen, Jingrui He, Haifeng Chen. MULAN: Multi-modal Causal Structure Learning and Root Cause Analysis for Microservice Systems. The Web Conference 2024 (WWW-2024 Oral Presentation).
9. **Lecheng Zheng**, Dawei Zhou, Hanghang Tong, Jiejun Xu, Yada Zhu, Jingrui He. FairGen: Towards Fair Graph Generation. IEEE International Conference on Data Engineering (ICDE-2024).
10. **Lecheng Zheng**, Yada Zhu, Jingrui He. Fairness-aware Multi-view Clustering. SIAM: SIAM International Conference on Data Mining (SDM-2023).
11. Dawei Zhou*, **Lecheng Zheng***, Dongqi Fu, Jiawei Han, Jingrui He. MentorGNN: Deriving Curriculum for Pre-Training GNNs. ACM International Conference on Information and Knowledge Management (CIKM-2022). (*: Equal contribution).
12. **Lecheng Zheng**, Jinjun Xiong, Yada Zhu, Jingrui He. Contrastive Learning with complex heterogeneity. ACM: SIGKDD Conference on Knowledge Discovery and Data Mining (KDD-2022).
13. **Lecheng Zheng**, Yu Cheng, Hongxia Yang, Nan Cao, Jingrui He. Deep Co-Attention Network for Multi-View Subspace Learning. The Web Conference 2021 (WWW-2021).

14. Jianbo Li, **Lecheng Zheng**, Yada Zhu, and Jingrui He. Outlier Impact Characterization for Time Series Data, The Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-2021).
15. Dawei Zhou, **Lecheng Zheng**, Jiawei Han, Jingrui He. A Data-driven Graph Generative Model for Temporal Interaction Networks. ACM: SIGKDD Conference on Knowledge Discovery and Data Mining (KDD-2020).
16. Dawei Zhou, **Lecheng Zheng**, Jianbo Li, Yada Zhu, Jingrui He. Domain Adaptive Multi-Modality Neural Attention Network for Financial Forecasting. The Web Conference 2020 (WWW-2020).
17. **Lecheng Zheng**, Yu Cheng, Jingrui He. Deep Multimodality Model for Multi-task Multi-view Learning. SIAM: SIAM International Conference on Data Mining 2019 (SDM-2019).

▪ Journal Papers

1. **Lecheng Zheng***, Dongqi Fu*, Ross Maciejewski, Jingrui He. DrGNN: Deep Residual Graph Neural Network with Contrastive Learning. TMLR, 2024. (*: Equal contribution).
2. Dawei Zhou*, **Lecheng Zheng***, Jiejun Xu, Jingrui He. Misc-GAN: A Multi-Scale Generative Model for Graphs. Frontier, 2019. (*: Equal contribution).

▪ Preprint Papers

1. Zihao Li, Xiao Lin, Zhining Liu, Jiaru Zou, Ziwei Wu, **Lecheng Zheng**, Dongqi Fu, Yada Zhu, Hendrik Hamann, Hanghang Tong, Jingrui He. Language in the Flow of Time: Time-Series-Paired Texts Weaved into a Unified Temporal Narrative. arXiv preprint.
2. **Lecheng Zheng**, Zhengzhang Chen, Haifeng Chen, Jingrui He. Online Multi-modal Root Cause Analysis. arXiv preprint.
3. Ziwei Wu*, **Lecheng Zheng***, Yuancheng Yu, Ruizhong Qiu, John Birge, Jingrui He. Fair Anomaly Detection For Imbalanced Groups. arXiv preprint. (*: Equal contribution).
4. **Lecheng Zheng***, Zhengzhang Chen*, Dongjie Wang*, Chengyuan Deng*, Reon Matsuoka, and Haifeng Chen. LEMMA-RCA: A Large Multi-modal Multi-domain Dataset for Root Cause Analysis. arXiv preprint. (*: Equal contribution)

▪ Patents

1. Yada Zhu, JinJun Xiong, Jingrui He, **Lecheng Zheng**, Xiaodong Cui. Explaining outliers in time series and evaluating anomaly detection methods. US Patent App. 17/170,164, 2022.
2. Zhengzhang Chen, Haifeng Chen, **Lecheng Zheng**. Unsupervised multi-modal causal structure learning for root cause analysis. US Patent App. 18/801,922, 2025.
3. Zhengzhang Chen, **Lecheng Zheng**, Haifeng Chen, Yanchi Liu, Xujiang Zhao, Yuncong Chen, LuAn Tang. Log representation learning for automated system maintenance. US Patent App. 18/829,545, 2025.

GUEST LECTURE	▪ University of Rochester	Dec 2024
	• Heterogeneous Machine Learning	
	▪ Virginia Tech	Apr 2022
	• Contrastive Learning: A Heterogeneous Perspective	
INVITED TALK	▪ Missouri S&T	Feb 2025
	• Heterogeneous Machine Learning: Characterization, Generation and Comprehension	
	▪ University of Kentucky	Feb 2025
	• Heterogeneous Machine Learning: Characterization, Generation and Comprehension	
	▪ Marquette University	Jan 2025
	• Heterogeneous Machine Learning: Characterization, Generation and Comprehension	
	▪ Virginia Tech	Jan 2025
	• Heterogeneous Machine Learning: Characterization, Generation and Comprehension	
	▪ NEC Laboratories America	Dec 2024
	• Heterogeneous Machine Learning: Characterization, Generation and Comprehension	
	▪ Clemson University	Feb 2024
	• Understanding Heterogeneous Machine Learning: Characterization, Generation and Comprehension	

TEACHING EXPERIENCE	<ul style="list-style-type: none"> ▪ Tufts University Aug 2021 <ul style="list-style-type: none"> • Generative Model for Static and Dynamic Graphs 	
	<ul style="list-style-type: none"> ▪ Teaching Assistant Jan 2022 – May 2022 <ul style="list-style-type: none"> • CS 412 Data Mining • Prof. Hanghang Tong 	
	<ul style="list-style-type: none"> ▪ Lecturer Jan 2022 <ul style="list-style-type: none"> • 2 hours lecture at Winter Camp by School of Information Science at UIUC • Topic: Exploring Rare Categories on Graphs: Representation, Inference, and Generalization 	
TUTORIAL EXPERIENCE	<ul style="list-style-type: none"> ▪ KDD Tutorial Aug 2024 <ul style="list-style-type: none"> • Topic: Heterogeneous Contrastive Learning for Foundation Models and Beyond 	
	<ul style="list-style-type: none"> ▪ SDM Tutorial Apr 2023 <ul style="list-style-type: none"> • Topic: Contrastive Learning: A Heterogeneous Perspective 	
	<ul style="list-style-type: none"> ▪ IJCAI Tutorial Jan 2021 <ul style="list-style-type: none"> • Topic: Exploring Rare Categories on Graphs: Representation, Inference, and Generalization 	
SERVICE	<ul style="list-style-type: none"> ▪ PROGRAM COMMITTEE IN CONFERENCES 	
	<ol style="list-style-type: none"> 1.2025 IEEE International Conference on Big Data (BigData) 2025 2.The 34th ACM International Conference on Information and Knowledge Management (CIKM) 2025 3.Thirty-ninth Annual Conference on Neural Information Processing Systems (NeurIPS) 2025 4.Forty-second International Conference on Machine Learning (ICML) 2025 5.The 34th International Joint Conference on Artificial Intelligence (IJCAI) 2025 6.Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2025 7.The 28th International Conference on Artificial Intelligence and Statistics (AISTATS) 2025 8.The ACM Web Conference (TheWebConf) 2025 9.The Thirteenth International Conference on Learning Representations (ICLR) 2025 10.The 39th AAAI Conference on Artificial Intelligence (AAAI) 2025 11.The 18th ACM International Conference on Web Search and Data Mining (WSDM) 2025 12.SIAM International Conference on Data Mining (SDM) 2025 13.2024 IEEE International Conference on Big Data (BigData) 2024 14.The 33rd ACM International Conference on Information and Knowledge Management (CIKM) 2024 15.The 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP) 2024 16.Thirty-Eighth Annual Conference on Neural Information Processing Systems (NeurIPS) 2024 17.Forty-first International Conference on Machine Learning (ICML) 2024 18.The 33rd International Joint Conference on Artificial Intelligence (IJCAI) 2024 19.Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2024 20.The ACM Web Conference (TheWebConf) 2024 21.The Twelfth International Conference on Learning Representations (ICLR) 2024 22.The 17th ACM International Conference on Web Search and Data Mining (WSDM) 2024 23.SIAM International Conference on Data Mining (SDM) 2024 24.2023 IEEE International Conference on Big Data (BigData) 2023 25.The 32nd ACM International Conference on Information and Knowledge Management (CIKM) 2023 26.Thirty-seventh Annual Conference on Neural Information Processing Systems (NeurIPS) 2023 27.The 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2023 28.The 32nd International Joint Conference on Artificial Intelligence (IJCAI) 2023 29.The ACM Web Conference (TheWebConf) 2023 	

30.SIAM International Conference on Data Mining (SDM)	2023
31.Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI)	2023
32.The 16th ACM International Conference on Web Search and Data Mining (WSDM)	2023
33.The 31st ACM International Conference on Information and Knowledge Management (CIKM)	2022
34.The 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)	2022
35.The 31st International Joint Conference on Artificial Intelligence (IJCAI)	2022
36.The ACM Web Conference (TheWebConf)	2022
37.Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI)	2022
38.SIAM International Conference on Data Mining (SDM)	2022
39.The 30th ACM International Conference on Information and Knowledge Management (CIKM)	2021
40.The 30th International Joint Conference on Artificial Intelligence (IJCAI)	2021
41.Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI)	2021
42.2020 IEEE International Conference on Big Data (BigData)	2020
43.2019 IEEE International Conference on Big Data (BigData)	2019
■ EXTERNAL REVIEWER	
1.Conference on Computer Vision and Pattern Recognition	2023
2.The Eleventh International Conference on Learning Representations (ICLR)	2023
3.The 45th ACM Conference on Research and Development in Information Retrieval (SIGIR)	2022
4.Thirty-sixth Annual Conference on Neural Information Processing Systems (NeurIPS)	2022
5.The Tenth International Conference on Learning Representations (ICLR)	2022
6.Thirty-fifth Annual Conference on Neural Information Processing Systems (NeurIPS)	2021
7.The 9th International Conference on Learning Representations (ICLR)	2021
8.The ACM Web Conference (TheWebConf)	2021
9.The 44th ACM Conference on Research and Development in Information Retrieval (SIGIR)	2021
10.The Thirty-eighth International Conference on Machine Learning (ICML)	2021
11.The 27th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)	2021
12.SIAM International Conference on Data Mining (SDM)	2021
13.The ACM Web Conference (TheWebConf)	2020
14.The 23rd International Conference on Artificial Intelligence and Statistics (AISTATS)	2020
15.The 43th ACM Conference on Research and Development in Information Retrieval (SIGIR)	2020
16.The Thirty-seventh International Conference on Machine Learning (ICML)	2020
17.The 26th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)	2020
18.2020 International Conference on Data Mining (ICDM)	2020
19.The 13th ACM International Conference on Web Search and Data Mining (WSDM)	2020
20.The ACM Web Conference (TheWebConf)	2019
21.2019 International Conference on Data Mining (ICDM)	2019
22.The 28th International Joint Conference on Artificial Intelligence (IJCAI)	2019
23.The 25th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)	2019
■ JOURNAL REVIEWER	
1.The ACM Transactions on Knowledge Discovery from Data	
2.Data Mining and Knowledge Discovery	
3.Transactions on Intelligent Systems and Technology	
4.Engineering Applications of Artificial Intelligence	
5.IEEE Transactions on Circuits and Systems for Video Technology	