

# Lecheng Zheng

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## EDUCATION

- University of Illinois at Urbana-Champaign**, Champaign, Illinois, USA Aug 2019 – Present
- PhD in Computer Science
  - Advisor: Jingrui He
- Arizona State University**, Tempe, Arizona, USA Aug 2017 – May 2019
- PhD in Computer Science
  - Advisor: Jingrui He
- University of Kansas**, Lawrence, Kansas, USA Aug 2012 – Dec 2016
- Bachelor of Computer Science
  - Advisor: Jun (Luke) Huan

## RESEARCH AND INDUSTRY EXPERIENCE

- iSAIL Lab, University of Illinois at Urbana-Champaign**, Champaign, USA Aug 2019 – Present
- Research Assistant
    - Research on heterogeneous machine learning, self-supervised learning, graph mining
    - Advisor: Prof. Jingrui He
- NEC laboratories America**, New Jersey, USA May 2023 – Aug 2023
- Research Intern
    - Research on multi-modality learning, root cause analysis
    - Advisor: Dr. Zhengzhang Chen
- STAR Lab, Arizona State University**, Champaign, USA Aug 2017 – Aug 2019
- Research Assistant
    - Research on heterogeneous machine learning, graph mining
    - Advisor: Prof. Jingrui He

## PUBLICATIONS

- **Conference Papers**
  1. 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).
  2. **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).
  3. **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).
  4. **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).
  5. **Lecheng Zheng**, Yada Zhu, Jingrui He. Fairness-aware Multi-view Clustering. SIAM: SIAM International Conference on Data Mining (SDM-2023).
  6. 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).
  7. **Lecheng Zheng**, Jinjun Xiong, Yada Zhu, Jingrui He. Contrastive Learning with complex heterogeneity. ACM: SIGKDD Conference on Knowledge Discovery and Data Mining (KDD-2022).
  8. **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).
  9. 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).
  10. 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).

11. 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).
12. **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. **Lecheng Zheng**, John R Birge, Yifang Zhang, Jingrui He. Towards Multi-view Graph Anomaly Detection with Similarity-Guided Contrastive Clustering. arXiv preprint.
2. **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.
3. **Lecheng Zheng**, Dongqi Fu, Ross Maciejewski, and Jingrui He. Deeper-GXX: deepening arbitrary GNNs. arXiv preprint.

GUEST LECTURE	▪ <b>Virginia Tech</b>	Apr 2022
	• Contrastive Learning: A Heterogeneous Perspective	
INVITED TALK	▪ <b>Clemson University</b>	Feb 2024
	• Understanding Heterogeneous Machine Learning: Characterization, Generation and Comprehension	
	▪ <b>Tufts University</b>	Aug 2021
TEACHING EXPERIENCE	• Generative Model for Static and Dynamic Graphs	
	▪ <b>Teaching Assistant</b>	Jan 2022 – May 2022
	• CS 412 Data Mining	
	• Prof. Hanghang Tong	
	▪ <b>Lecturer</b>	Jan 2022
TUTORIAL EXPERIENCE	• 2 hours lecture at Winter Camp by School of Information Science at UIUC	
	• Topic: Exploring Rare Categories on Graphs: Representation, Inference, and Generalization	
	▪ <b>KDD Tutorial</b>	Aug 2024
	• Topic: Heterogeneous Contrastive Learning for Foundation Models and Beyond	
	▪ <b>SDM Tutorial</b>	Apr 2023
GRAND EXPERIENCE	• Topic: Contrastive Learning: A Heterogeneous Perspective	
	▪ <b>IJCAI Tutorial</b>	Jan 2021
	• Topic: Exploring Rare Categories on Graphs: Representation, Inference, and Generalization	
	▪ Participate in proposal writing for the project at IBM-Illinois Discovery Accelerator Institute: “Climate Runtime: Programming Fabric for Geospatial Representation, Fusion and Federation” (PI: He, Co-PI: Tong, Ainsworth, \$1,248,476)	
	▪ Participate in proposal writing for the project at IBM-Illinois Discovery Accelerator Institute: “Deep Climate Anomaly Modeling and Impact Analysis” (PI: He, Co-PI: Tong, \$75,000).	
ACADEMIC AWARDS	▪ Participate in proposal writing for the project at C3.AI: “Multi-Facet Rare Event Modeling of Adaptive Insider Threats” (PI: He, CO-PI: Birge, \$200,000)	
	▪ CS PhD Fellowship	2023
	▪ SDM Student Travel Award	2023
	▪ CIKM Student Travel Award	2022
	▪ WWW Student Travel Award	2021
	▪ KDD Student Registration Award	2021

- KDD Student Registration Award 2020

## SERVICE

### ■ PROGRAM COMMITTEE IN CONFERENCES

- 1.The Thirteenth International Conference on Learning Representations (ICLR) 2025
- 2.The 39th AAAI Conference on Artificial Intelligence (AAAI) 2025
- 3.The 18th ACM International Conference on Web Search and Data Mining (WSDM) 2025
- 4.SIAM International Conference on Data Mining (SDM) 2025
- 5.2024 IEEE International Conference on Big Data (BigData) 2024
- 6.The 33rd ACM International Conference on Information and Knowledge Management (CIKM) 2024
- 7.The 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP) 2024
- 8.Thirty-Eighth Annual Conference on Neural Information Processing Systems (NeurIPS) 2024
- 9.Forty-first International Conference on Machine Learning (ICML) 2024
- 10.The 33rd International Joint Conference on Artificial Intelligence (IJCAI) 2024
- 11.Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2024
- 12.The ACM Web Conference (TheWebConf) 2024
- 13.The Twelfth International Conference on Learning Representations (ICLR) 2024
- 14.The 17th ACM International Conference on Web Search and Data Mining (WSDM) 2024
- 15.SIAM International Conference on Data Mining (SDM) 2024
- 16.2023 IEEE International Conference on Big Data (BigData) 2023
- 17.The 32nd ACM International Conference on Information and Knowledge Management (CIKM) 2023
- 18.Thirty-seventh Annual Conference on Neural Information Processing Systems (NeurIPS) 2023
- 19.The 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2023
- 20.The 32nd International Joint Conference on Artificial Intelligence (IJCAI) 2023
- 21.The ACM Web Conference (TheWebConf) 2023
- 22.SIAM International Conference on Data Mining (SDM) 2023
- 23.Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI) 2023
- 24.The 16th ACM International Conference on Web Search and Data Mining (WSDM) 2023
- 25.The 31st ACM International Conference on Information and Knowledge Management (CIKM) 2022
- 26.The 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2022
- 27.The 31st International Joint Conference on Artificial Intelligence (IJCAI) 2022
- 28.The ACM Web Conference (TheWebConf) 2022
- 29.Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI) 2022
- 30.SIAM International Conference on Data Mining (SDM) 2022
- 31.The 30th ACM International Conference on Information and Knowledge Management (CIKM) 2021
- 32.The 30th International Joint Conference on Artificial Intelligence (IJCAI) 2021
- 33.Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI) 2021
- 34.2020 IEEE International Conference on Big Data (BigData) 2020
- 35.2019 IEEE International Conference on Big Data (BigData) 2019
- 36.2018 IEEE International Conference on Big Data (BigData) 2018

### ■ 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.IEEE Transactions on Knowledge and Data Engineering
- 3.Data Mining and Knowledge Discovery
- 4.The Frontier
- 5.Engineering Applications of Artificial Intelligence
- 6.IEEE Transactions on Circuits and Systems for Video Technology

#### ■ STUDENT VOLUNTEER

- 1.KDD-UC Mentor for ACM Mentorship Program, 2023
- 2.CS Grad Ambassadors for Fall'22 grad recruiting at UIUC, 2022
- 3.CS Grad Ambassadors for Fall'20 grad recruiting at UIUC, 2020
- 4.KDD student volunteer, 2022
- 5.KDD student volunteer, 2021

#### REFERENCES

##### ■ Dr. Jingrui He

- Professor, School of Information Sciences, University of Illinois at Urbana-Champaign
- Homepage: <https://www.hejingrui.org/>
- Email: [jingrui@illinois.edu](mailto:jingrui@illinois.edu)
- Address: Room 5156, 614 E. Daniel St., Champaign, IL 61820

##### ■ Dr. John R. Birge

- Professor, Booth School of Business, University of Chicago
- Homepage: <https://www.chicagobooth.edu/faculty/directory/b/john-r-birge>
- Email: [john.birge@chicagobooth.edu](mailto:john.birge@chicagobooth.edu)
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##### ■ Dr. Yada Zhu

- Principal Research Scientist and Manager, IBM
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- **Dr. Haifeng Chen**
  - Head of Data Science and Systems Security Department, NEC Laboratories America
  - Homepage: <https://haifengchen.gitlab.io/intro/>
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  - Address: 4 Independence Way, Suite 200 Princeton, NJ 08540