# Yue Zhao

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NFORMATION	github.com/yzhao062	CS Department, SAL 104	
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	I USC Faculty Directory	Department of Computer Science	
	<b>G</b> Google Scholar	University of Southern California	
Research Summary	I focus on building <i>robust</i> , <i>trustworthy</i> , and <i>scalable</i> <b>AI</b> systems by addressing challenges at three distinct but connected levels: from ensuring <b>robustness and trustworthiness</b> in AI (Principle Level), leveraging structured and generative AI methods for scientific and societal applications (Knowledge Level), to developing scalable and open-source AI systems (System Level). These efforts advance AI4Science, healthcare, finance, and political science.		
	1. Robust and Trustworthy AI (Principle): Ensuring AI systems can detect outliers, anomalies, and out-of-distribution (OOD) data to provide trust, fairness, and transparency. This principle-focused work underpins all other levels of AI research and applications.		
	<ul><li>□ OOD Detection</li><li>□ Outlier Detection</li></ul>	<ul><li>□ Anomaly Detection</li><li>□ Trustworthiness</li></ul>	
	2. Structured and Generative AI for Science and Applications (Knowledge): Leveraging graph-based learning to understand interconnected data, and applying generative AI methods, large language models (LLMs), and foundation models to address challenges in drug discovery, synthetic clinical trials, and political forecasting.		
	<ul> <li>□ Graph Learning</li> <li>□ Graph OOD Detection</li> <li>□ Graph Anomaly Detection</li> <li>□ LLMs</li> </ul>	<ul> <li>□ Foundation Models</li> <li>□ AI4Science</li> <li>□ Drug Discovery</li> <li>□ Political Forecasting</li> </ul>	
	3. Scalable and Open-Source AI (System): Developing efficient tools and frameworks for automated model selection, hyperparameter optimization, and large-scale anomaly detection. As the creator of PyOD (25M+ downloads, used by NASA, Tesla, etc.), I lead over 10 open-source projects, including PyGOD, TDC, and ADBench, collectively accumulating 20,000+ GitHub stars.		
	<ul><li>□ Automated ML</li><li>□ Distributed Systems</li></ul>	<ul><li>□ ML Systems (MLSys)</li><li>□ Scalability</li></ul>	
FULL-TIME Professional Experience	University of Southern California  Thomas Lord Department of Computer Science  Assistant Professor (Tenure-Track)  • Foundations Of Robust Trustworthy Intelligent System  • USC Machine Learning Center (MaSCle): Link	Aug. 2023 - Present ems ( <b>FORTIS</b> ) Lab: Link	
	PwC Canada Consulting & Deals		
	Senior Consultant (Data Scientist) Consultant (Data Scientist)	Aug. 2017 - Jun. 2019 Feb. 2017 - Jul. 2017	
Education	Carnegie Mellon University	Pittsburgh, PA	
	Ph.D. in Information Systems and Management	Sep. 2019 - May. 2023	
	• Affiliation: CMU automated learning systems group (C	atalyst) and Data Analytics Techniques	

Algorithms (DATA) Lab

• Advisors and Mentors: CMU: Prof. Leman Akoglu, Prof. Zhihao Jia, and Prof. George Chen. I collaborate with Prof. Jure Leskovec at Stanford, and Prof. Philip S. Yu at UIC.

## University of Toronto

Toronto, ON

Master of Science in Computer Science

Sep. 2015 - Dec. 2016

## University of Cincinnati

Cincinnati, OH

Bachelor of Science in Computer Engineering

Sep. 2010 - May. 2015

Minor: Computer Science and Mathematics

# AWARDS, GRANTS, AND FUNDING

# As Principal Investigator (August 2023 onwards)

Capital One Research Awards	\$50,000	Oct. 2024
Best Paper Award @ KDD Resource-Efficient Learning Workshop	Recognition	Aug. 2024
NSF ATD	\$110,000	Aug. 2024
NSF POSE	\$395,000	Jun. 2024
Google Cloud Research Innovators	Recognition	Mar. 2024
AAAI New Faculty Highlights	Recognition	Feb. 2024

Note: Monetary values represent my portion of the funding. Total project budgets may be larger.

# Prior to Principal Investigator Role (Before August 2023)

Meta 2022 AI4AI Research Award (student co-PI)	Recognition	Oct. 2022
The Norton Labs Graduate Fellowship	Fellowship	Mar. 2022
CMU Presidential Fellowship	Fellowship	2019
Mitacs-Accelerate Research and Development Funding	Funding	2016 - 2017
University Global Award and Scholarship	Scholarship	2010 - 2015
Mantei/Mae Award & Scholar	Award	2012 - 2015
Engineer of the Month	Recognition	Jun. 2014

Note: Monetary values are omitted for awards and recognitions received prior to PI role.

# Publications

#### Preprints & Under Submission

**G** SCHOLAR RESEARCHG

53. Yuangang Li, Jiaqi Li, Zhuo Xiao, Tiankai Yang, Yi Nian, Xiyang Hu, Yue Zhao NLP-ADBench: NLP Anomaly Detection Benchmark

Under submission

arXiv preprint arXiv:2412.04784

52. Sizhe Liu, Yizhou Lu, Siyu Chen, Xiyang Hu, Tianfan Fu, Yue Zhao DrugAgent: Automating AI-aided Drug Discovery Programming through LLM Multi-Agent Collaboration

Under submission

arXiv preprint arXiv:2411.15692

51. Zhendong Liu, Yi Nian, Henry Peng Zou, Li Li, Xiyang Hu, Yue Zhao

COOD: Concept-based Zero-shot OOD Detection

Under submission

arXiv preprint arXiv:2411.13578

50. Hanhui Wang, Yihua Zhang, Ruizheng Bai, <u>Yue Zhao</u>, Sijia Liu, Zhengzhong Tu Edit Away and My Face Will Not Stay: Personal Biometric Defense against Malicious Generative Editing

Under submission

arXiv preprint arXiv:2411.16832

49. Shawn Li, Huixian Gong, Hao Dong, Tiankai Yang, Zhengzhong Tu, Yue Zhao DPU: Dynamic Prototype Updating for Multimodal Out-of-Distribution Detection

Under submission

arXiv preprint arXiv:2411.08227

48. Haoyan Xu, Kay Liu, Zhengtao Yao, Philip S. Yu, Kaize Ding, <u>Yue Zhao</u>

LEGO-Learn: Label-Efficient Graph Open-Set Learning

Under submission

arXiv preprint arXiv:2410.16386

47. Zerui Xu, Fang Wu, Tianfan Fu, Yue Zhao

Retrieval-Reasoning Large Language Model-based Synthetic Clinical Trial Generation

Under submission

arXiv preprint arXiv:2410.12476

46. Yuehan Qin, Yichi Zhang, Yi Nian, Xueying Ding, Yue Zhao

MetaOOD: Automatic Selection of OOD Detection Models

Under submission

arXiv preprint arXiv:2410.03074

45. Nan Hao, Yuangang Li, Kecheng Liu, Songtao Liu, Yingzhou Lu, Bohao Xu, Chenhao Li, Jintai Chen, Ling Yue, Tianfan Fu, Xiyang Hu, Xiao Wang, <u>Yue Zhao</u>

Artificial Intelligence-Aided Digital Twin Design: A Systematic Review

Ongoing work and to be submitted

https://www.preprints.org/manuscript/202408.2063

44. Mehrdad Kiamari, Mohammad Kiamari, Bhaskar Krishnamachari, Yue Zhao

GKAN: Graph Kolmogorov-Arnold Networks

Under submission

arXiv preprint arXiv:2406.06470

43. Minqi Jiang, Chaochuan Hou, Ao Zheng, Xiyang Hu, Songqiao Han, Hailiang Huang, Xiangnan He, Philip S. Yu, <u>Yue Zhao</u>

Weakly Supervised Anomaly Detection: A Survey

Under submission

arXiv preprint arXiv:2302.04549

## Peer-reviewed Journal Papers

42. Hao Dong, Gaetan Frusque, <u>Yue Zhao</u>, Eleni Chatzi, Olga Fink NNG-Mix: Improving Semi-supervised Anomaly Detection with Pseudo-anomaly Generation *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2024 (Accepted)

41. Ling Yang\*, Zhilong Zhang\*, Yang Song, Shenda Hong, Runsheng Xu, <u>Yue Zhao</u>, Wentao Zhang, Bin Cui, Ming-Hsuan Yang

Diffusion Models: A Comprehensive Survey of Methods and Applications

ACM Computing Surveys (CSUR), 2023

(\*equal contribution)

40. Yue Zhao\*, Martin Q. Ma\*, Xiaorong Zhang, Leman Akoglu

The Need for Unsupervised Outlier Model Selection: A Review and Evaluation of Internal Evaluation Strategies

ACM SIGKDD Explorations Newsletter (SIGKDD Explor.), 2023

(\*equal contribution)

39. Kexin Huang\*, Tianfan Fu\*, Wenhao Gao\*, <u>Yue Zhao</u>, Yusuf Roohani, Jure Leskovec, Connor W. Coley, Cao Xiao, Jimeng Sun, Marinka Zitnik

Artificial Intelligence Foundation for Therapeutic Science

Nature Chemical Biology (NCHEMB), 2022

(\*equal contribution)

38. <u>Yue Zhao\*</u>, Zheng Li\*, Xiyang Hu, Nicola Botta, Cezar Ionescu, George H. Chen ECOD: Unsupervised Outlier Detection Using Empirical Cumulative Distribution Functions *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2022. (\*equal contribution)

37. Yue Zhao, Zain Nasrullah, Zheng Li

PyOD: A Python Toolbox for Scalable Outlier Detection

Journal of Machine Learning Research (JMLR), 2019.

#### Conference & Workshop Papers

- 36. Hao Dong, <u>Yue Zhao</u>, Eleni Chatzi, Olga Fink MultiOOD: Scaling Out-of-Distribution Detection for Multiple Modalities Advances in Neural Information Processing Systems (NeurIPS), Spotlight, 2024
- 35. Jiaqing Xie, <u>Yue Zhao</u>, Tianfan Fu.
  DeepProtein: Deep Learning Library and Benchmark for Protein Sequence Learning
  NeurIPS Workshop on AI for New Drug Modalities (AIDrugX), Spotlight, 2024.
- 34. Xueying Ding, <u>Yue Zhao</u>, Leman Akoglu
  Fast Unsupervised Deep Outlier Model Selection with Hypernetworks
  ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2024
- 33. Yuehan Qin, Yichi Zhang, <u>Yue Zhao</u>
  MetaOOD: Meta-learning for Automatic Out-of-Distribution Detection Model Selection
  ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD Workshop on Resource-Efficient Learning for Knowledge Discovery), 2024. Best Paper Award.
- 32. Lichao Sun, Yue Huang, Haoran Wang, Siyuan Wu, Qihui Zhang, Chujie Gao, Yixin Huang, Wenhan Lyu, Yixuan Zhang, Xiner Li, Zhengliang Liu, Yixin Liu, Yijue Wang, Zhikun Zhang, 50+ collaborative authors, Yue Zhao
  - TrustLLM: Trustworthiness in Large Language Models International Conference on Machine Learning (ICML), 2024
- Songtao Liu, Hanjun Dai, <u>Yue Zhao</u>, Peng Liu
   Preference Optimization for Molecule Synthesis with Conditional Residual Energy-based Models International Conference on Machine Learning (ICML), Oral, 2024
- Yue Zhao, Leman Akoglu
   Hyperparameter Optimization for Unsupervised Outlier Detection
   International Conference on Automated Machine Learning (AutoML), 2024
- 29. <u>Yue Zhao</u>
  Towards Reproducible, Automated, and Scalable Anomaly Detection
  AAAI Conference on Artificial Intelligence (AAAI), New Faculty Highlights, 2024
- 28. Minqi Jiang\*, Chaochuan Hou\*, Ao Zheng\*, Songqiao Han, Hailiang Huang<sup>†</sup>, Qingsong Wen, Xiyang Hu<sup>†</sup>, <u>Yue Zhao</u><sup>†</sup> ADGym: Design Choices for Deep Anomaly Detection.
  - Advances in Neural Information Processing Systems (NeurIPS), 2023 (†Corresponding author)
- 27. Jaemin Yoo, Yue Zhao, Lingxiao Zhao, Leman Akoglu DSV: An Alignment Validation Loss for Self-supervised Outlier Model Selection European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD), 2023
- 26. Peng Xu, Lin Zhang, Xuanzhou Liu, Jiaqi Sun, <u>Yue Zhao</u>, Haiqin Yang, Bei Yu Do Not Train It: A Linear Neural Architecture Search of Graph Neural Networks *International Conference on Machine Learning (ICML)*, 2023
- Yue Zhao, Guoqing Zheng, Subhabrata Mukherjee, Robert McCann, Ahmed Awadallah ADMoE: Anomaly Detection with Mixture-of-Experts from Noisy Labels
   Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), 2023
- Yue Zhao, George H. Chen, Zhihao Jia
   TOD: GPU-accelerated Outlier Detection via Tensor Operations

   International Conference on Very Large Data Bases (VLDB), 2023
- 23. Songqiao Han\*, Xiyang Hu\*, Hailiang Huang\*, Minqi Jiang\*, <u>Yue Zhao\*</u>
  ADBench: Anomaly Detection Benchmark

  Advances in Neural Information Processing Systems (NeurIPS), 2022

  (\*equal contribution & the corresponding author)
- 22. <u>Yue Zhao\*</u>, Kay Liu\*, Yingtong Dou\*, et al. Benchmarking Node Outlier Detection on Graphs Advances in Neural Information Processing Systems (NeurIPS), 2022 (\*equal contribution)

- Yue Zhao, Xiaorong Zhang, Leman Akoglu
   ELECT: Toward Unsupervised Outlier Model Selection
   IEEE International Conference on Data Mining (ICDM), 2022.
   Regular paper. Acceptance rate 9.77% (85/870); overall acceptance 20% (174/870).
- 20. Zhiming Xu, Xiao Huang, Yue Zhao, Yushun Dong, Jundong Li Contrastive Attributed Network Anomaly Detection with Data Augmentation Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2022 Acceptance rate 19%.
- Yue Zhao, Ryan A. Rossi, Leman Akoglu
   Automatic Unsupervised Outlier Model Selection
   Advances in Neural Information Processing Systems (NeurIPS), 2021
   Acceptance rate 26%.
- 18. Kwei-Herng Lai, Daochen Zha, Junjie Xu, <u>Yue Zhao</u>, Guanchu Wang, Xia Hu Revisiting Time Series Outlier Detection: Definitions and Benchmarks *Advances in Neural Information Processing Systems* (*NeurIPS*), 2021
- 17. Kexin Huang\*, Tianfan Fu\*, Wenhao Gao\*, <u>Yue Zhao</u>, Yusuf Roohani, Jure Leskovec, Connor W. Coley, Cao Xiao, Jimeng Sun, Marinka Zitnik

  Therapeutics Data Commons: Machine Learning Datasets and Tasks for Drug Discovery and Development

  Advances in Neural Information Processing Systems (NeurIPS), 2021

  (\*equal contribution)
- 16. Yue Zhao\*, Xiyang Hu\*, Cheng Cheng, Cong Wang, Changlin Wan, Wen Wang, Jianing Yang, Haoping Bai, Zheng Li, Cao Xiao, Yunlong Wang, Zhi Qiao, Jimeng Sun, Leman Akoglu SUOD: Accelerating Large-scale Unsupervised Heterogeneous Outlier Detection Conference on Machine and Learning Systems (MLSys), 2021. Acceptance rate 23.5% (52/221). (\*equal contribution)
- 15. Kwei-Herng Lai\*, Daochen Zha\*, Guanchu Wang, Junjie Xu, Yue Zhao, Devesh Kumar, Yile Chen, Purav Zumkhawaka, Minyang Wan, Diego Martinez and Xia Ben Hu TODS: An Automated Time Series Outlier Detection System (Demo paper) Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI), 2021. (\*equal contribution)
- 14. Meng-Chieh Lee, <u>Yue Zhao</u>, Aluna Wang, Pierre Jinghong Liang, Leman Akoglu, Vincent S. Tseng, Christos Faloutsos AutoAudit: Mining Accounting and Time-Evolving Graphs IEEE International Conference on Big Data (Big Data), 2020
- 13. Changlin Wan, Dongya Jia, <u>Yue Zhao</u>, Wennan Chang, Sha Cao, Xiao Wang, and Chi Zhang A Data Denoising Approach to Optimize Functional Clustering of Single Cell RNA-sequencing Data *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, 2020
- Yue Zhao, Xueying Ding, Jianing Yang, Haoping Bai.
   SUOD: Toward Scalable Unsupervised Outlier Detection
   Workshops at the Thirty-Fourth AAAI Conference on Artificial Intelligence, 2020.
   Extended version published in MLSys 2021.
- Zheng Li, <u>Yue Zhao</u>, Nicola Botta, Cezar Ionescu, Xiyang Hu COPOD: Copula-Based Outlier Detection IEEE International Conference on Data Mining (ICDM), 2020.
- Zheng Li, <u>Yue Zhao</u>, Jialin Fu SYNC: A Copula based Framework for Generating Synthetic Data from Aggregated Sources IEEE International Conference on Data Mining Workshops (ICDMW), 2020.
- Yiqun Mei, <u>Yue Zhao</u>, Wei Liang
   DSR: An Accurate Single Image Super Resolution Approach for Various Degradations *IEEE International Conference on Multimedia and Expo (ICME)*, 2020, London, UK.
- 8. <u>Yue Zhao</u>, Xuejian Wang\*, Cheng Cheng\*, Xueying Ding\*
  Combining Machine Learning Models and Scores using combo Library (Demo paper)

  Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI), 2020.

  (\*equal contribution)

- Colin Wan, Zheng Li, Alicia Guo, <u>Yue Zhao</u>
   SynC: A Unified Framework for Generating Synthetic Population with Gaussian Copula Workshops at the Thirty-Fourth AAAI Conference on Artificial Intelligence, 2020.
   Extended version published in ICDMW 2020.
- Zain Nasrullah, <u>Yue Zhao</u>
   Music Artist Classification with Convolutional Recurrent Neural Networks
   IEEE International Joint Conference on Neural Networks (IJCNN), 2019, Hungary.
- Yue Zhao, Zain Nasrullah, Maciej K. Hryniewicki, Zheng Li LSCP: Locally Selective Combination in Parallel Outlier Ensembles SIAM International Conference on Data Mining (SDM), 2019, Calgary, Canada. Acceptance rate 22.7% (90/397).
- 4. <u>Yue Zhao,</u> Maciej K. Hryniewicki

DCSO: Dynamic Combination of Detector Scores for Outlier Ensembles

ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD Workshop on Outlier Detection De-constructed), 2018, London, UK.

Extended version published in SDM 2019, renamed to LSCP.

- 3. <u>Yue Zhao</u>, Maciej K. Hryniewicki
  - XGBOD: Improving Supervised Outlier Detection with Unsupervised Representation Learning *IEEE International Joint Conference on Neural Networks* (*IJCNN*), 2018, Rio, Brazil.
- Yue Zhao, Maciej K. Hryniewicki, Francesca Cheng, Boyang Fu, Xiaoyu Zhu Employee Turnover Prediction with Machine Learning: A Reliable Approach Intelligent System Conference (Intellisys), 2018, London, UK. Acceptance rate 34% (194/568).
- Yue Zhao\*, Zhongtian Qiu\*, Yiqing Yang\*, Weiwei Li\*, Mingming Fan An Empirical Study of Touch-based Authentication Methods on Smartwatches ACM International Symposium on Wearable Computers (ISWC), 2017, Maui, USA. Acceptance rate 25.6% (23/90). (\*equal contribution)

# INTERNSHIP No EXPERIENCE Ma

# ${\bf Norton Life Lock\ Research\ Group}$

XPERIENCE Machine Learning Research Intern

2022

#### Microsoft Research

Machine Learning Research Intern

2022

#### Stanford University, Computer Science Department

Visiting Student Researcher (Prof. Jure Leskovec)

2021

#### IQVIA, Analytics Center of Excellence

Machine Learning Research Intern

2020

# Siemens PLM Software USA

Software Engineer (Intern & Contract)

Mar. 2012 - Dec. 2014

#### TEACHING EXPERIENCE

#### University of Southern California

Instructor

Los Angeles, CA Spring 2025

CSCI 566 Deep Learning and Its Applications

Instructor

Spring 2024

CSCI 566 Deep Learning and Its Applications

# Carnegie Mellon University

Pittsburgh, PA

Teaching Assistant

Fall 2022

Managing Digital Business (Prof. David Riel)

Teaching Assistant & co-Instructor (lectures on AutoML and MLSys)

Spring 2022 - Fall 2020

Intro to Artificial Intelligence (Prof. David Steier)

# Teaching Assistant

Spring 2022

Digital Transformation (Prof. David Riel)

**Teaching Assistant** (helping on course topics)

Statistics for IT Managers (Prof. Daniel Nagin)

Fall 2021

#### University of Toronto

Teaching Assistant & Lab Session Instructor Embedded Systems (Prof. Philip Anderson) Toronto, ON Fall 2015

## University of Cincinnati

Teaching Assistant & Lab Session Instructor

Intro to Programming (Prof. George Purdy)

# Cincinnati, OH Fall 2014

#### Ph.D. Students

- Haoyan Xu (USC, ECE Ph.D., 2024 Spring-)
- Yuehan Qin (USC, CS Ph.D., 2024 Fall-)
- Tiankai Yang (USC, CS Ph.D., 2024 Fall-)
- Li Li (USC, CS Ph.D., 2024 Fall-)

# QUALIFICATION & THESIS COMMITTEE

- Alex Bisberg (USC, CS Ph.D.)
- Gengyu Rao (USC, CS Ph.D.)
- Mehrdad Kiamari (USC, ECE Ph.D.)
- Haonan Wang (USC, ECE Ph.D.)
- Yuan Meng (USC, ECE Ph.D.)
- Hassan Hamad (USC, ECE Ph.D.)
- Yizhou Zhang (USC, CS Ph.D.)
- Haoming Li (USC, CS Ph.D.)
- Arash Hajisafi (USC, CS Ph.D.)
- Yi Chien Lin (USC, ECE Ph.D.)
- Yuke Zhang (USC, ECE Ph.D.)

# SERVICES

#### Conference Organizing Committee

• Workflow Co-Chair for KDD 2023

# **External Reviewer for Funding Proposals**

• Dutch Research Council (NWO)

#### **Journal Editor**

- Associate Editor, IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- Action Editor, Journal of Data-centric Machine Learning Research (DMLR)

# Program Committee (PC) or Area Chair (AC) for Conferences and Workshops

- ICLR 2025 (AC)
- AAAI 2025 (Senior PC)
- ICML 2024, 2025 (AC)
- AISTATS 2024, 2025 (AC)
- MLSys 2024
- KDD 2020, 2021, 2022, 2023
- IJCAI 2022, 2023
- NeurIPS 2021, 2022, 2023

- AAAI 2021, 2022, 2023
- AAAI Demonstrations 2021, 2022
- MICCAI 2020, 2021, 2022
- ICDM 2020
- KDD Workshop on Outlier Detection and Description (ODD), 2021
- KDD Workshop on Anomaly and Novelty Detection (ANDEA), 2021, 2022
- IJCAI Workshop on Artificial Intelligence for Anomalies and Novelties (AI4AN), 2020, 2021
- INFORMS Workshop on Data Science 2021

#### Journal Reviewer

- Journal of Machine Learning Research (JMLR)
- PNAS Nexus
- Machine Learning
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Internet of Things Journal (IoT-J)
- IEEE Intelligent Systems
- IEEE Journal on Selected Areas in Communications (J-SAC)
- Data Mining and Knowledge Discovery (DMAI)
- ACM Transactions on Management Information Systems (TMIS)
- Knowledge and Information Systems (KAIS)
- INFORMS Journal on Computing (IJOC)
- Big Data
- Artificial Intelligence Review (AIRE)
- Neurocomputing
- IEEE Transactions on Systems, Man, and Cybernetics: Systems
- IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)
- IEEE Network Magazine
- IEEE Computational Intelligence Magazine (CIM)
- BioData Mining
- European Journal of Management and Business Economics (EJMBE)
- The Journal of Open Source Software (JOSS)

SFU@NeurIPS'24 KAIST	Towards Robust Al: Advances in Outlier and OOD Detection Unsupervised Model Selection: Automation with Meta-learning	Dec. 2024 Nov. 2024
Kennesaw State University	and LLMs Unsupervised Model Selection: Automation with Meta-learning	Oct. 2024
	and LLMs	
LinkedIn Anti-Abuse AI	Outlier Detection: Automation, Systems, and GenAI	Aug. 2024
Amazon Security AI	Outlier Detection: Automation, Systems, and GenAI	Aug. 2024
New York University	Outlier Detection: Automation, Systems, and GenAI	Aug. 2024
University of Washington	Outlier Detection: Automation, Systems, and GenAI	Jun. 2024
Microsoft	Outlier Detection: Automation, Systems, and GenAI	Jun. 2024
USC Retreat on AI and Engineering Safety	Safety Measures for LLMs	Apr. 2024
Visa Research	Towards Reproducible, Automated, and Scalable AD	Apr. 2024
USC Symposium on Frontiers of Generative AI	Generative AI for Anomaly Detection	Mar. 2024
AAAI New Faculty High- lights (invited)	$Towards\ Reproducible,\ Automated,\ and\ Scalable\ AD$	Feb. 2024
U of Nevada, Las Vegas	Automated and Scalable ML Algorithms and Systems	Oct. 2023
Samsung Seminar	Automated and Scalable Anomaly Detection Systems	Aug. 2023
KDD SoCal Day	Enable Applications by ML with Noisy Inputs	Aug. 2023
CMU Catalyst	How (Not) to Fail Your Academic Job Search	May. 2023
KAUST	Automated and Scalable ML Algorithms and Systems	Apr. 2023
Emory University	Automated and Scalable ML Algorithms and Systems	Apr. 2023
USC	Automated and Scalable ML Algorithms and Systems	Mar. 2023
UC Davis	Automated and Scalable ML Algorithms and Systems	Mar. 2023
Stony Brook University	Automated and Scalable ML Algorithms and Systems	Feb. 2023
University of Chicago	Automated and Scalable ML Algorithms and Systems	Feb. 2023
UC Merced	Automated and Scalable ML Algorithms and Systems	Feb. 2023
CMU PDL Meeting	Automated and Scalable ML Algorithms and Systems	Jan. 2023
CMU Data Science Seminar	Guest Lecture Automated Anomaly Detection	Nov. 2022
LoG Seminar	Large-scale Graph Anomaly Detection	Oct. 2022
Intuit	Anomaly Detection for Financial Risk Modeling	Aug. 2022
Rice University	Large-scale Anomaly Detection with Automation	Sep. 2022
Microsoft Research	Weakly-supervised Anomaly Detection	Sep. 2022
Wells Fargo	Anomaly Detection for Financial Risk Modeling	Aug. 2022
Columbia University	Guest Lecture Anomaly Detection	Jul. 2022
Morgan Stanley	Automated Outlier Detection	Jun. 2022
Microsoft Research	Automated Outlier Detection	Jun. 2022
Morgan Stanley	Large-scale Anomaly Detection Systems	Mar. 2022
Rutgers Business School	Outlier Model Selection	Mar. 2022
Tesla	Large-scale Anomaly Detection Systems	Feb. 2022
Catalyst, CMU	Systems for Data Mining Algorithms	Dec. 2021
E&Y Canada	ML applications in Data Analytics	Oct. 2021
University of Nottingham	General Machine Learning Applications	Jan. 2021

Talks and Lectures