Yue Zhao

CONTACT INFORMATION

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USC Faculty Directory
Google Scholar

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Los Angeles, CA
United States, 90089
Department of Computer Science
University of Southern California

RESEARCH SUMMARY

I focus on building *trustworthy*, *knowledge-driven*, and *generative* **AI systems** to address complex, real-world challenges. My research integrates **robustness**, **graph learning**, and **generative AI**, developing interconnected solutions that ensure reliability, extract insights from structured data, and drive scientific innovation.

1. **Robust and Trustworthy AI Across Domains:** Developing reliable AI systems that detect outliers, anomalies, and out-of-distribution (OOD) data to ensure trust, fairness, and transparency. These methods span multiple areas, including finance, security, and healthcare.
2. **Graph Learning and Structured Knowledge for Decision-Making:** Applying graph-based models to extract insights from interconnected data, supporting tasks like OOD detection, neural architecture search (NAS), and anomaly detection on graphs. Graph learning powers AI applications in healthcare, financial risk modeling, and molecular science, enabling scalable, domain-specific solutions.
3. **Generative AI and Foundation Models for AI for Science (AI4Science):** Leveraging generative AI, LLMs, and foundation models to solve complex scientific challenges and inform decision-making. These models address tasks like synthetic clinical trials, drug discovery, and political forecasting, driving breakthroughs in AI4Science.

(1) Robust and Trustworthy AI Systems

- ❑ Out-of-distribution (OOD) Detection
- ❑ Outlier Detection
- ❑ Anomaly Detection
- ❑ Trustworthiness

(2) Graph Learning and Structured Knowledge for Decision-Making

- ❑ Graph Neural Networks (GNNs)
- ❑ Graph Open Set Learning
- ❑ Anomaly Detection on Graphs
- ❑ Graph-based Knowledge Discovery

(3) Generative AI and Foundation Models for AI4Science

- ❑ Large Language Models (LLMs)
- ❑ Foundation Models
- ❑ AI4Science
- ❑ Clinical Trial Simulation
- ❑ Drug Discovery
- ❑ LLMs for Political Science

OPEN-SOURCE HIGHLIGHTS

yzhao062

Open-source Contribution: I have led or contributed as a core developer to more than 10 ML open-source initiatives. Popular ones include PyOD (A Python Toolbox for Scalable Outlier Detection), ADBench (Anomaly Detection Benchmark), and TDC (An ML Data Hub for Drug Discovery). My works receive **20,000 GitHub Stars** and 23,000,000 downloads as of November 11, 2024.

FULL-TIME PROFESSIONAL EXPERIENCE

University of Southern California
Thomas Lord Department of Computer Science
Assistant Professor (Tenure-Track) — Aug. 2023 - Present

- Foundations Of Robust Trustworthy Intelligent Systems (**FORTIS**) Lab: Link
- USC Machine Learning Center (MaSCle): Link

PwC Canada
Consulting & Deals
Senior Consultant (Data Scientist) — Aug. 2017 - Jun. 2019

Consultant (Data Scientist) 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 (Catalyst) 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

Scholar
ResearchG

Preprints & Under Submission

48. Haoyan Xu, Kay Liu, Zhengtao Yao, Philip S. Yu, Kaize Ding, Yue Zhao
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, Yue Zhao
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, Yue Zhao
Weakly Supervised Anomaly Detection: A Survey
Under submission
arXiv preprint arXiv:2302.04549

Peer-reviewed Journal Papers

41. Ling Yang*, Zhilong Zhang*, Yang Song, Shenda Hong, Runsheng Xu, Yue Zhao, 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*, Yue Zhao, 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. Yue Zhao*, 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.

Peer-reviewed Conference & Workshop Papers (with proceedings)

36. Hao Dong, Yue Zhao, Eleni Chatzi, Olga Fink
MultiOOD: Scaling Out-of-Distribution Detection for Multiple Modalities
*Advances in Neural Information Processing Systems (**NeurIPS**)*, **Spotlight**, 2024

35. Xueying Ding, Yue Zhao, Leman Akoglu
Fast Unsupervised Deep Outlier Model Selection with Hypernetworks
*ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**KDD**), 2024*

34. 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

33. Songtao Liu, Hanjun Dai, Yue Zhao, Peng Liu
Preference Optimization for Molecule Synthesis with Conditional Residual Energy-based Models
*International Conference on Machine Learning (**ICML**)*, **Oral**, 2024

32. Yue Zhao, Leman Akoglu
Hyperparameter Optimization for Unsupervised Outlier Detection
*International Conference on Automated Machine Learning (**AutoML**)*, 2024

31. Yue Zhao
Towards Reproducible, Automated, and Scalable Anomaly Detection
*AAAI Conference on Artificial Intelligence (**AAAI**), New Faculty Highlights*, 2024

30. Minqi Jiang*, Chaochuan Hou*, Ao Zheng*, Songqiao Han, Hailiang Huang†, Qingsong Wen, Xiyang Hu†, Yue Zhao†
ADGym: Design Choices for Deep Anomaly Detection.
*Advances in Neural Information Processing Systems (**NeurIPS**)*, 2023
(†Corresponding author)

29. 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

28. Peng Xu, Lin Zhang, Xuanzhou Liu, Jiaqi Sun, Yue Zhao, Haiqin Yang, Bei Yu
Do Not Train It: A Linear Neural Architecture Search of Graph Neural Networks
*International Conference on Machine Learning (**ICML**)*, 2023

27. 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

26. Yue Zhao, George H. Chen, Zhihao Jia
TOD: GPU-accelerated Outlier Detection via Tensor Operations
*International Conference on Very Large Data Bases (**VLDB**)*, 2023

25. Songqiao Han*, Xiyang Hu*, Hailiang Huang*, Minqi Jiang*, Yue Zhao*
ADBench: Anomaly Detection Benchmark
*Advances in Neural Information Processing Systems (**NeurIPS**)*, 2022
(*equal contribution & the corresponding author)

24. Yue Zhao*, Kay Liu*, Yingtong Dou*, et al.
Benchmarking Node Outlier Detection on Graphs
*Advances in Neural Information Processing Systems (**NeurIPS**)*, 2022
(*equal contribution)

23. 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).

22. 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%.

21. Yue Zhao, Ryan A. Rossi, Leman Akoglu
Automatic Unsupervised Outlier Model Selection
*Advances in Neural Information Processing Systems (**NeurIPS**)*, 2021
Acceptance rate 26%.

20. Kwei-Herng Lai, Daochen Zha, Junjie Xu, Yue Zhao, Guanchu Wang, Xia Hu
Revisiting Time Series Outlier Detection: Definitions and Benchmarks
*Advances in Neural Information Processing Systems (**NeurIPS**)*, 2021

19. Kexin Huang*, Tianfan Fu*, Wenhao Gao*, Yue Zhao, 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)

18. 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)

17. 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)

16. Meng-Chieh Lee, Yue Zhao, 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

15. Changlin Wan, Dongya Jia, Yue Zhao, 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

14. Zheng Li, Yue Zhao, Nicola Botta, Cezar Ionescu, Xiyang Hu
COPOD: Copula-Based Outlier Detection
*IEEE International Conference on Data Mining (**ICDM**)*, 2020.

13. Zheng Li, Yue Zhao, Jialin Fu
SYNC: A Copula based Framework for Generating Synthetic Data from Aggregated Sources
*IEEE International Conference on Data Mining Workshops (**ICDMW**)*, 2020.

12. Yiqun Mei, Yue Zhao, Wei Liang
DSR: An Accurate Single Image Super Resolution Approach for Various Degradations
*IEEE International Conference on Multimedia and Expo (**ICME**)*, 2020, London, UK.

11. Yue Zhao, 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)

10. Zain Nasrullah, Yue Zhao
Music Artist Classification with Convolutional Recurrent Neural Networks
IEEE International Joint Conference on Neural Networks (***IJCNN***), 2019, Hungary.

9. 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).

8. Yue Zhao, Maciej K. Hryniewicki
XGBOD: Improving Supervised Outlier Detection with Unsupervised Representation Learning
IEEE International Joint Conference on Neural Networks (***IJCNN***), 2018, Rio, Brazil.

7. 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).

6. 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)

Peer-reviewed Workshop Papers (without proceedings)

5. Jiaqing Xie, Yue Zhao, Tianfan Fu.
DeepProtein: Deep Learning Library and Benchmark for Protein Sequence Learning
***NeurIPS Workshop** on AI for New Drug Modalities (AIDrugX)*, **Spotlight**, 2024.

4. Yuehan Qin, Yichi Zhang, Yue Zhao
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.

3. 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*.
2. Colin Wan, Zheng Li, Alicia Guo, Yue Zhao
   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*.
1. Yue Zhao, 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.

Internship Experience

NortonLifeLock Research Group
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 — Los Angeles, CA
- **Instructor** — Spring 2025 (scheduled)
  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) — Fall 2021
  Statistics for IT Managers (Prof. Daniel Nagin)

University of Toronto — Toronto, ON
- **Teaching Assistant & Lab Session Instructor** — Fall 2015
  Embedded Systems (Prof. Philip Anderson)

University of Cincinnati — Cincinnati, OH
- **Teaching Assistant & Lab Session Instructor** — Fall 2014
  Intro to Programming (Prof. George Purdy)

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 (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)

Talks and Lectures

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 Highlights (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