

Yue Zhao

CONTACT INFORMATION

 yzhao010@usc.edu

 github.com/yzhao062

 [linkedin.com/in/yzhao062](https://www.linkedin.com/in/yzhao062)

 viterbi-web.usc.edu/~yzhao010/

 USC Faculty Directory

 Google Scholar

213-821-2369

CS Department, SAL 104

Los Angeles, CA

United States, 90089

Department of Computer Science

University of Southern California

RESEARCH SUMMARY

I build *robust*, *efficient*, and *automated* **machine learning (ML)** and **data mining (DM)** algorithms, systems, and applications. My primary areas of interest are:

- Robust and Trustworthy of AI:** Enhancing AI systems through out-of-distribution (OOD) detection, outlier detection (OD), and anomaly detection.
- Efficient and Automated AI:** Developing efficient and automated ML systems with limited human supervision.
- AI Applications:** Applying AI technologies to address complex problems in security, finance, and healthcare sectors.
- Foundation models and generative AI for OD/OOD:** How do these emerging directions benefit anomaly and OOD detection, and vice versa?

(1) Robust and Trustworthy of AI

☐ Out-of-distribution (OOD) Detection

☐ Anomaly Detection

☐ Outlier Detection

☐ Trustworthy AI

(2) Efficient and Automated AI

☐ Machine Learning Systems

☐ Meta-Learning

☐ Automated Machine Learning

☐ Parallel Computing

☐ Decentralized Learning

☐ Quantization and Approximation

(3) AI Applications

☐ Healthcare AI

☐ Financial Risk Modeling

☐ AI for Security

☐ AI for Science

(4) Foundation models and generative AI for OD/OOD


☐ Large Language Models (LLMs)


☐ LLMs for Anomaly/OOD Detection

☐ Trustworthy LLMs

☐ Anomaly/OOD Detection for LLMs

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 22,000,000 downloads as of September 7, 2024.

FULL-TIME PROFESSIONAL EXPERIENCE




University of Southern California
Thomas Lord Department of Computer Science
Assistant Professor (Tenure-Track)
• Robustness, Efficiency, Security, Automation, and ApplIcation Lab (**RESAIL**) Lab: [Link](#)
• USC Machine Learning Center (MaSCle): [Link](#)

PwC Canada
Consulting & Deals
Senior Consultant (Data Scientist)
Consultant (Data Scientist)

Aug. 2023 - Present

Aug. 2017 - Jun. 2019

Feb. 2017 - Jul. 2017

EDUCATION	Carnegie Mellon University <i>Ph.D. in Information Systems and Management</i>	Pittsburgh, PA Sep. 2019 - May. 2023
	<ul style="list-style-type: none"> • 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 <i>Master of Science in Computer Science</i>	Toronto, ON Sep. 2015 - Dec. 2016
	University of Cincinnati <i>Bachelor of Science in Computer Engineering</i> Minor: <i>Computer Science and Mathematics</i>	Cincinnati, OH Sep. 2010 - May. 2015
 AWARDS, GRANTS, AND FUNDING	Amazon Research Awards	Aug. 2024
	Best Paper Award @ KDD Resource-Efficient Learning Workshop	Aug. 2024
	NSF ATD	Aug. 2024
	NSF POSE	Jun. 2024
	Google Cloud Research Innovators	Mar. 2024
	AAAI New Faculty Highlights	Feb. 2024
	Meta 2022 AI4AI Research Award (student co-PI)	Oct. 2022
	The Norton Labs Graduate Fellowship	Mar. 2022
	CMU Presidential Fellowship	2019
	Mitacs-Accelerate Research and Development Funding	2016-2017
	University Global Award and Scholarship	2010-2015
	Mantei/Mae Award & Scholar	2012-2015
	Engineer of the Month	Jun. 2014
PUBLICATIONS	Preprints & Under Submission	
	 SCHOLAR  RESEARCHG	
	44. Nan Hao, Yuqiang 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 Under submission https://www.preprints.org/manuscript/202408.2063	
	43. Mehrdad Kiamari, Mohammad Kiamari, Bhaskar Krishnamachari, <u>Yue Zhao</u> GKAN: Graph Kolmogorov-Arnold Networks Under submission arXiv preprint arXiv:2406.06470	
	42. Hao Dong, <u>Yue Zhao</u> , Eleni Chatzi, Olga Fink MultiOOD: Scaling Out-of-Distribution Detection for Multiple Modalities Under submission arXiv preprint arXiv:2405.17419	
	41. Hao Dong, Gaetan Frusque, <u>Yue Zhao</u> , Eleni Chatzi, Olga Fink NNG-Mix: Improving Semi-supervised Anomaly Detection with Pseudo-anomaly Generation Under submission arXiv preprint arXiv:2311.11961	
	40. 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

39. 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)
38. 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)
37. 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)
36. 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)
35. 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)

34. 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
33. 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
32. 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
31. Yue Zhao, Leman Akoglu
Hyperparameter Optimization for Unsupervised Outlier Detection
International Conference on Automated Machine Learning (AutoML), 2024
30. Yue Zhao
Towards Reproducible, Automated, and Scalable Anomaly Detection
AAAI Conference on Artificial Intelligence (AAAI), New Faculty Highlights, 2024
29. 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)
28. 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

27. 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
26. 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
25. Yue Zhao, George H. Chen, Zhihao Jia
TOD: GPU-accelerated Outlier Detection via Tensor Operations
International Conference on Very Large Data Bases (VLDB), 2023
24. 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)
23. Yue Zhao*, Kay Liu*, Yingdong Dou*, et al.
Benchmarking Node Outlier Detection on Graphs
Advances in Neural Information Processing Systems (NeurIPS), 2022
(*equal contribution)
22. 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).
21. 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%.
20. Yue Zhao, Ryan A. Rossi, Leman Akoglu
Automatic Unsupervised Outlier Model Selection
Advances in Neural Information Processing Systems (NeurIPS), 2021
Acceptance rate 26%.
19. 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
18. 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)
17. 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)
16. 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)
15. 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
14. 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
 13. Zheng Li, Yue Zhao, Nicola Botta, Cezar Ionescu, Xiyang Hu
 COPOD: Copula-Based Outlier Detection
IEEE International Conference on Data Mining (ICDM), 2020.
 12. 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.
 11. 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.
 10. 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)
 9. Zain Nasrullah, Yue Zhao
 Music Artist Classification with Convolutional Recurrent Neural Networks
IEEE International Joint Conference on Neural Networks (IJCNN), 2019, Hungary.
 8. 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).
 7. 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.
 6. 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).
 5. 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)**
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
 **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 <ul style="list-style-type: none"> • Supervised by Dr. Acar Tamersoy and Dr. Kevin Roundy. 	2022
	Microsoft Research	
	Machine Learning Research Intern <ul style="list-style-type: none"> • Designed weakly supervised anomaly detection algorithms • Supervised by Dr. Guoqing Zheng and Dr. Subhabrata (Subho) Mukherjee. 	2022
	Stanford University, Computer Science Department	
	Visiting Student Researcher <ul style="list-style-type: none"> • Designed new GNN systems. • Supervised by Prof. Jure Leskovec. 	2021
	IQVIA, Analytics Center of Excellence	
	Machine Learning Research Intern <ul style="list-style-type: none"> • Designed new machine learning models in healthcare. • Supervised by Dr. Cao (Danica) Xiao (IQVIA) and Prof. Jimeng Sun (UIUC). 	2020
	Siemens PLM Software USA	
	Software Engineer (Intern & Contract) <ul style="list-style-type: none"> • Managed a Java project to transition the LabManager system to vCloud Director. • Refactored outdated automation code and added new modules and JUnit test cases. • Led a C++ Code Coverage project on Teamcenter platform to strengthen its stability. 	Mar. 2012 - Dec. 2014
TEACHING EXPERIENCE	University of Southern California	Los Angeles, CA
	Instructor	Spring 2025 (scheduled)
	<i>CSCI 566 Deep Learning and Its Applications</i>	
	Instructor	Spring 2024
	<i>CSCI 566 Deep Learning and Its Applications</i>	
	Carnegie Mellon University	Pittsburgh, PA
	Teaching Assistant	Fall 2022
	<i>Managing Digital Business</i> (Prof. David Riel)	
	Teaching Assistant & co-Instructor (lectures on AutoML and MLSys)	Spring 2022
	Teaching Assistant & co-Instructor (lectures on AutoML and MLSys)	Fall 2021
	Teaching Assistant & co-Instructor (lectures on AutoML)	Spring 2021
	Teaching Assistant & co-Instructor (lectures on AutoML)	Fall 2020
	<i>Intro to Artificial Intelligence</i> (Prof. David Steier)	
	Teaching Assistant	Spring 2022
	<i>Digital Transformation</i> (Prof. David Riel)	
	Teaching Assistant (helping on course topics)	Fall 2021
	<i>Statistics for IT Managers</i> (Prof. Daniel Nagin)	

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