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|----------------------------|--|-----------------------|
| RESEARCH | Spatiotemporal Machine Learning, Deep Learning, Tensor Methods, and their applications. | |
| CURRENT APPOINTMENT | University of California, San Diego , La Jolla, California <i>Assistant Professor, Department of Computer Science and Engineering, Halicioğlu Data Science Institute</i> | July 2020 - Present |
| PREVIOUS APPOINTMENT | Northeastern University , Boston, Massachusetts <i>Assistant Professor, Khoury College of Computer Sciences Network Science Institute, College of Engineering, Physics (By Courtesy)</i> | Aug 2018 - June 2020 |
| | California Institute of Technology , Pasadena, California <i>Postdoctoral Scholar, Computing + Mathematical Sciences</i> <ul style="list-style-type: none">• Advisors: Anima Anandkumar, Yisong Yue | Aug 2017 - Aug 2018 |
| | Stanford University , Palo Alto, California <i>Visiting Researcher, Computer Science Department</i> <ul style="list-style-type: none">• Host: Christopher Ré | Aug 2016 - Oct 2016 |
| | IBM Research , Yorktown Heights, New York <i>Research Intern</i> | June 2015 - Aug 2015 |
| | Yahoo! Labs , Sunnyvale, California <i>Research Intern</i> | June 2014 - Aug 2014 |
| | Intel Lab , Santa Clara, California <i>Research Intern</i> | May 2013 - Aug 2013 |
| | Microsoft R&D , Minghang, Shanghai <i>Program Manager Intern</i> | June 2011 - June 2012 |
| EDUCATION | University of Southern California , Los Angeles, California <i>Ph.D., Computer Science, Computer Science Department</i> <i>Thesis: Tensor Learning for Large-Scale Spatiotemporal Analysis</i> <i>Finalist in William F. Ballhaus, Jr. Prize for Excellence in Graduate Engineering Research</i> <ul style="list-style-type: none">• Thesis Committee: Yan Liu (chair), Cyrus Shahabi (co-chair), Mahdi Soltanolkotabi | Aug 2012 - Aug 2017 |
| | Zhejiang University , Hangzhou, Zhejiang, PRC <i>B.S in Computer Science, Chu Kochen Honors College</i> <ul style="list-style-type: none">• Advisor: Zhihua Zhang | Aug 2008 - June 2012 |
| SELECTED AWARDS AND HONORS | NSF CAREER Award , National Science Foundation, June 2022 | |
| | Hellman Fellow , Hellman Fellows Fund, May 2022 | |
| | Outstanding Faculty Researcher Award , JPMorgan, July 2021 | |
| | Facebook Data Science Research Awards , Facebook Research, June 2021 | |

Google Cloud Research Innovators, Google Cloud, March 2021

AWS Machine Learning Research Awards, Amazon Science, Feb 2021

Best Paper Award, NeurIPS Machine Learning for Public Health, Dec 2020

Adobe Data Science Research Awards, Adobe Research, March 2020

Google Faculty Research Award, Google Research, Feb 2020

Best Dissertation Award, University of Southern California, 2018

Best Paper Award, NIPS Time Series Workshop, 2017

SIGKDD Scholarship, ACM 50th Celebration of the Turing Award, San Francisco, 2017

Rising Stars in EECS, 40 Awardees in North America, MIT, 2015

Annenberg Graduate Fellowship, University of Southern California, 2012

Selected in ACM Heidelberg Laureate Forum , University of Heidelberg, 2013

Microsoft 2011 Young Fellowship, Microsoft Research Asia, 2011

International Forum (iF) Design Hanover Global Concept Award, iF, 2010

First prize in Undergraduate Research and Innovation, Zhejiang University, 2010

CONFERENCE
PUBLICATIONS

- [C1] Dongxia Wu, Matteo Chinazzi, Alessandro Vespignani, Yi-An Ma, Rose Yu Multi-fidelity Hierarchical Neural Processes
To Appear in *ACM SIGKDD Conference on Knowledge Discovery and Data Mining* (KDD), 2022
- [C2] Rui Wang, Robin Walters, Rose Yu "Approximately Equivariant Networks for Imperfectly Symmetric Dynamics" In Proceedings of *International Conference on Machine Learning* (ICML), 2022
- [C3] Peter Eckmann, Kunyang Sun, Bo Zhao, Mudong Feng, Michael Gilson, Rose Yu "LIMO: Latent Inceptionism for Targeted Molecule Generation" In Proceedings of *International Conference on Machine Learning* (ICML), 2022
- [C4] Zihao Zhou, Xingyi Yang, Ryan Rossi, Handong Zhao, Rose Yu. "Neural Point Process for Learning Spatiotemporal Event Dynamics" In Proceedings of *Annual Conference on Learning for Dynamics and Control* (L4DC), 2022
- [C5] Alan Li, Zihao Zhou, Elise Jortbeg, Rose Yu. "Generalization of Deep Sequence Models for Forecasting Aortic Pressure Cross-Cohort" In Proceeding of *Computing in Cardiology* (CinC), 2022.
- [C6] Alejandro Rodriguez Pascual, Ishan Mehta, Muhammad Khan, Frank Rodriz, Rose Yu. "Understanding why shooters shoot - An AI-powered engine for basketball performance profiling" MIT Sloan Sports Analytics Conference (SSAC), 2022
- [C7] Nima Dehmamy, Robin Walters, Yanchen Liu, Dashun Wang, Rose Yu. "Automatic Symmetry Discovery with Lie Algebra Convolutional Network" In Proceedings of *Advances in Neural Information Processing Systems* (NeurIPS), 2021

- [C8] Dongxia Wu, Liyao Gao, Xinyue Xiong, Matteo Chinazzi, Alessandro Vespignani, Yi-An Ma, Rose Yu. "Quantifying Uncertainty in Deep Spatiotemporal Forecasting" In Proceedings of *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2021
- [C9] Rui Wang, Danielle Maddix, Christos Faloutsos, Yuyang Wang, Rose Yu. "Bridging Physics-based and Data-driven modeling for Learning Dynamical Systems", In Proceeding of *Annual Conference on Learning for Dynamics and Control (L4DC)*, 2021
- [C10] Steven Wong, Lejun Jiang, Robin Walters, Tamás G. Molnár, Gábor Orosz, Rose Yu. "Physics-Guided Deep Learning for Traffic Forecasting using Vehicle-to-Vehicle Communication" In Proceeding of *Annual Conference on Learning for Dynamics and Control (L4DC)*, 2021
- [C11] Robin Walters, Jinxi (Leo) Li, Rose Yu. "Trajectory Prediction using Equivariant Continuous Convolution", In Proceeding of *International Conference on Learning Representations (ICLR)*, 2021
- [C12] Rui Wang, Robin Walters, Rose Yu. "Incorporating Symmetry into Deep Dynamics Models for Improved Generalization", In Proceeding of *International Conference on Learning Representations (ICLR)*, 2021
- [C13] Fan Xie, Alex Chowdhury, Clara De Paolis, Linfeng Zhao, Lawson Wong, Rose Yu. "Deep Imitation Learning for Bimanual Robotic Manipulation" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2020
- [C14] Armand Comas Massague, Chi Zhang, Zlatan Feric, Octavia Camps, Rose Yu. "Learning Disentangled Representations of Video with Missing Data" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2020
- [C15] Jung Yeon Park, Kenneth Theo Carr, Stephan Zheng, Yisong Yue, Rose Yu. "Multiresolution Tensor Learning for Efficient and Interpretable Spatial Analysis" In Proceedings of *the 32th International Conference on Machine Learning (ICML)*, 2020
- [C16] Chintan Shah, Nima Dehmamy, Nicola Perra, Matteo Chinazzi, Albert-László Barabási, Alessandro Vespignani, Rose Yu. "Finding Patient Zero: Learning Contagion Source with Graph Neural Networks" In *International Conference on Network Science (NetSci)*, 2020.
- [C17] Csaba Both, Nima Dehmamy, Albert-László Barabási, Rose Yu. "Network Layout using Graph Neural Networks" In *International Conference on Network Science (NetSci)*, 2020.
- [C18] Rui Wang, Adrian Albert, Karthik, Kashinath, Mustafa, Mustafa, Rose Yu. "Towards Physics-informed Deep Learning for Spatiotemporal Modeling of Turbulent Flows", In Proceeding of *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2020
- [C19] Eliza Huang, Rui Wang, Uma Chandrasekaran, Rose Yu. "Aortic Pressure Forecasting with Deep Sequence Learning", In Proceeding of *Computing in Cardiology (CinC)*, 2020
- [C20] Nima Dehmamy, Albert-László Barabási, Rose Yu. "Understanding the Representation Power of Graph Neural Networks in Learning Graph Topology" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2019
- [C21] Yukai Liu, Rose Yu, Stephan Zheng, Eric Zhan, Yisong Yue. "NAOMI: Non-Autoregressive Multiresolution Sequence Imputation" In Proceeding of *Advances in Neural Information Processing Systems (NeurIPS)*, 2019
- [C22] Guanya Shi, Xichen Shi, Michael O'Connell, Rose Yu, Kamyar Azizzadenesheli, Anima Anandkumar, Yisong Yue, Soon-Jo Chung. "Neural Lander: Stable Drone Landing Control using Learned Dynamics" In Proceedings of *International Conference on Robotics and Automation (ICRA)*, 2019
- [C23] Yaguang Li, Rose Yu, Cyrus Shahabi, Yan Liu. "Diffusion Convolutional Recurrent Neural Network: Data-Driven Traffic Forecasting" In Proceedings of *International Conference on Learning Representations (ICLR)*, 2018
- [C24] Rose Yu, Guangyu Li, Yan Liu. "Tensor regression meets Gaussian Processes." In Proceedings of *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2018

- [C25] Rose Yu, Yaguang Li, Ugur Demiryurek, Cyrus Shahabi, Yan Liu. "Deep Learning: A Generic Approach for Extreme Condition Traffic Forecasting." In Proceedings of *the Seventeenth SIAM International Conference on Data Mining (SDM)*, 2017
- [C26] Rose Yu, Yan Liu. "Learning from Multiway Data: Simple and Efficient Tensor Regression." In Proceedings of *International Conference on Machine Learning (ICML)*, 2016
- [C27] Dingxiong Deng, Cyrus Shahabi, Ugur Demiryurek, Linhong Zhu, Rose Yu, Yan Liu, "Latent Space Model for Road Networks to Predict Time-Varying Traffic", In Proceeding of *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2016
- [C28] Rose Yu, Andrew Gelfand, Suju Rajan, Cyrus Shahabi, Yan Liu. "Geographic Segmentation via Latent Poisson Factor Model." In *ACM International Conference on Web Search and Data Mining (WSDM)*, 2016
- [C29] Rose Yu, Dehua Cheng, Yan Liu. "Accelerated Online Low Rank Tensor Learning for Multivariate Spatiotemporal Streams." In Proceedings of *International Conference on Machine Learning (ICML)*, 2015
- [C30] Rose Yu, Mohammad Taha Bahadori, Yan Liu. "Fast Multivariate Spatio-temporal Analysis via Low Rank Tensor Learning." In Proceeding of *Advances in Neural Information Processing Systems (NIPS)*, 2014 **Spotlight**
- [C31] Rose Yu, Xinran He, Yan Liu. "GLAD: Group Anomaly Detection in Social Media Analysis." In Proceeding of *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2014
- [C32] Cuixia Gao, Naiyan Wang, Qi Yu, Zhihua Zhang. "A Feasible Nonconvex Relaxation Approach to Feature Selection." In *Proceeding of 24th AAAI Conference on Artificial Intelligence (AAAI)*, 2011

JOURNAL
PUBLICATIONS

- [J1] Krenn, Mario and Ai, Qianxiang and Barthel, Senja and Carson, Nessa and Frei, Angelo and Frey, Nathan C and Friederich, Pascal and Gaudin, Théophile and Gayle, Alberto Alexander and Jablonka, Kevin Maik, Rose Yu, and others. "SELFIES and the future of molecular string representations", In proceedings of *Patterns*.
- [J2] Utkrisht Rajkumar, Sara Javadzadeh, Mihir Bafna, Dongxia Wu, Rose Yu, Jingbo Shang, Vineet Bafna. "DeepViFi: Detecting Oncoviral Infections in Cancer Genomes using Transformers". In proceedings of *ACM International Conference on Bioinformatics, Computational Biology and Health Informatics*
- [J3] Cramer, E.Y., Lopez, V.K., Niemi, J., George, G.E., Cegan, J.C., Dettwiller, I.D., England, W.P., Farthing, M.W., Hunter, R.H., Lafferty, B. and Linkov, I., 2021. "Evaluation of individual and ensemble probabilistic forecasts of COVID-19 mortality in the US". In proceedings of *the National Academy of Sciences (PNAS)*, 2022
- [J4] K. Kashinath, M. Mustafa, A. Albert, J.-L. Wu, C. Jiang, S. Esmailzadeh, K. Azizzadenesheli, R. Wang, A. Singh, A. Manepalli, D. Chirila, R. Yu, R. Walters, B. White, H. Xiao, H. A. Tchelepi, P. Marcus, A. Anandkumar, Prabhat. "Physics-informed machine learning: Case studies for weather and climate modelling" In *Journal of Philosophical Transactions of the Royal Society A*, 2020
- [J5] Rose Yu, Stephan Zheng, Anima Anandkumar, Yisong Yue. "Long Term Forecasting with Higher Order Tensor RNN". In *Journal of Machine Learning Research (JMLR)*, 2018
- [J6] Rose Yu, Yan Liu. "Spatio-Temporal Analysis of Social Media Data" In *Encyclopedia of GIS*, 2016
- [J7] Rose Yu, Huida Qiu, Zhen Wen, Ching-Yung Liu, Yan Liu. "A Survey on Social Media Analysis Anomaly Detection" In *ACM KDD Exploration*, 2016
- [J8] Rose Yu, Xinran He, Yan Liu. "GLAD: Group Anomaly Detection in Social Media Analysis - Extended Abstract." In *ACM Transactions on Knowledge Discovery in Data (TKDD)*, 2015

SELECTED
WORKSHOP PAPERS
(UNREFEREED)

- [W1] Xingyu Su, Robin Walters, Denis Aslangil, Rose Yu. "Forecasting Variable-Density 3D Turbulent Flow. Poster Contact". In *ICLR Deep Learning for Simulation workshop, 2021*
- [W2] Rui Wang, Danielle Maddix, Christos Faloutsos, Yuyang Wang, Rose Yu. "Physics-based vs. Data-driven: A Benchmark Study on COVID-19 Forecasting", **Best Paper Award** in *Advances in Neural Information Processing Systems* (NeurIPS), Machine Learning for Public Health workshop, 2020
- [W3] Rui Wang, Adrian Albert, Karthik Kashinath, Mustafa Mustafa, Rose Yu. "Towards physics informed deep learning for spatiotemporal modeling of turbulence flow". **Oral Presentation** at *Advances in Neural Information Processing Systems* (NeurIPS), Machine Learning for Physical Sciences workshop, 2019
- [W4] Clara De Paolis, Saeed Amizadeh, Rose Yu. "A Neural Framework for Learning DAG to DAG Translation ". In *Advances in Neural Information Processing Systems* (NeurIPS), relational representation learning workshop, 2018
- [W5] Rose Yu, Stephan Zheng, Anima Anandkumar, Yisong Yue. "Long-term forecasting using Tensor-Train RNN". **Best Paper Award** in *Advances in Neural Information Processing Systems* (NIPS), time series workshop, 2017
- [W6] Yaguang Li, Rose Yu, Cyrus Shahabi, Yan Liu. "Diffusion Convolutional Recurrent Neural Network: Data-Driven Traffic Forecasting". **Oral Presentation** at *Advances in Neural Information Processing Systems* (NIPS), time series workshop, 2017
- [W7] Rose Yu, Stephan Zheng. "Learning Chaotic Dynamics with Tensor RNN". In *International Conference on Machine Learning* (ICML), Deep structured prediction workshop, 2017
- [W8] Rose Yu, Paroma Varma, Dan Iter, Chris De Sa, Christopher Re, "Socratic Learning". In *Advances in Neural Information Processing Systems* (NIPS) future of interactive machine learning workshop, 2016

AWARDED GRANTS

- [G1] PI, NSF CAREER, *2146343: New Frontiers In Large-Scale Spatiotemporal Data Analysis* \$599,999, July 2022 - June 2027
- [G2] Lead PI, DOE ASCR, *DE-SC0022255: Discovering Physically Meaningful Structures from Climate Extreme Data* \$ 3,560,504, Sep 2021 - Aug 2024
- [G3] Co-PI, NSF DMS, *2134274: SCALE MoDL: Representation Theoretic Foundations of Deep Learning*, \$300,000, Jan 2022 - Dec 2024
- [G4] Co-PI, NSF CNS, *2100237-CCRI: ABR: Cognitive Hardware and Software Ecosystem Community Infrastructure (CHASE-CI)*, \$999,971, June 2021 - May 2024
- [G5] Co-PI, NSF CNS, *2120019-CCRI: ENS: Cognitive Hardware and Software Ecosystem Community Infrastructure (CHASE-CI)*, \$1,800,000, Oct 2021 - Sep 2024
- [G6] PI, Facebook Data Science Research Award, *Sample-efficient sequential Bayesian decision making*, \$50,000, June 2021
- [G7] PI, AWS ML Research Awards, *Deep Relational Forecasting for Dynamic Graphs*, \$30,000, with \$50,000 AWS Credits, Feb, 2021
- [G8] Co-PI, DARPA SBIR, *W31P4Q-21-C-0014: Combining Simulated and Real Data for Near-Term Forecasting of Nonstationary Dynamic Processes*, \$120,000, Feb 2021 - Sep 2021.
- [G9] PI, Abiomed Research Grant, *Automated Patient Care Assistant via Machine Learning*, \$299,480, Nov 2020 - Oct 2023.
- [G10] PI, Army Research Office, *W911NF-20-1-0334: Physics-Guided Learning for Sample Efficient Spatiotemporal Decision Making*, \$370,704, Sep 2020 - Aug 2023.
- [G11] PI, Adobe Data Science Research Award, *Context-Aware Customer Journey Optimization in Spatiotemporal Environment*, \$50,000, June 2020

- [G12] PI, Google Faculty Award, *Physics Guided Deep Learning for Realistic and Efficient Traffic Simulation*, \$67,694, Feb 2020
- [G13] PI, ALCF Director's Discretionary (DD) Program Allocation Award *Accelerating Traffic Simulation with Graph Neural Networks*, 2 million core hours, June 2020 - Jan 2021.
- [G14] PI, NERSC AY 2020 Exploratory Allocation Award *Physics Informed Deep Learning for Predicting Turbulence Flow*, 45,000 (NERSC MPP Hours) , Jan 2020 - Jan, 2021.
- [G15] PI, NSF CRII, *IIS-1850349/2037745: Multiresolution Tensor Learning for Scalable and Interpretable Spatiotemporal Analysis*, \$174,998, Aug, 2019 - July, 2022
- [G16] PI, Abiomed Research Grant, *Anticipating Patient Outcome via Machine Learning*, \$50,000, July, 2019 - Sep, 2020
- [G17] PI, ONR STTR, *N68335-19-C-0310: Subcontract: Predictive Graph Convolutional Networks*, \$71,784, June, 2019 - Dec, 2019
- [G18] Co-PI, Mathworks Microgrant, *Battery State of Health Machine Learning Prognostics*, \$17,400, Sep, 2019 - Dec, 2019
- [G19] Co-PI, ONR ECP, *Subcontract: Learning and Prediction of Dynamic Processes on Evolving Networks*, \$28,840, March, 2019 - Oct, 2019
- [G20] PI, Northeastern Tier 1, *Physics-Informed Deep Learning for High-Resolution Climate Extremes Modeling*, \$50,000, July, 2019 - Sep, 2020
- [G21] PI, Northeastern Khory Seed Grant, *Learning Bimanual Robotic Manipulation Via Deep Graph Sequence* , \$50,000, Aug, 2019 - Aug, 2020
- [G22] NVIDIA GPU Grant Oct 2018, 1 Titan Xp, Amazon AWS Research Credits, Oct 2018, \$20,000 Cloud Credits, Google Cloud Research Credits, Oct, 2018, \$10,000 Cloud Credits

ADVISING

Postdocs Supervised

- Robin Walters, 2020, active

Ph.D. Students Advised

- Dongxia (Allen) Wu, 2020, active
- Rui (Ray) Wang, 2019, active
- Jung Yeon (John) Park, 2019 - 2020, advised at Northeastern
- Clara De Paolis, 2018 -2020, advised at Northeastern

TEACHING

| | |
|--|-------------|
| Deep Reinforcement Learning (CSE 291) | Fall 2021 |
| Deep Learning (CSE 151B) | Spring 2021 |
| Deep Generative Models (CSE 291(G00)) | Fall 2020 |
| Advanced Machine Learning (CS 7140) | Spring 2020 |
| Machine Learning Seminar (CS 4950) | Fall 2019 |
| Introduction to Computer Science Research (CS 3950) | Fall 2019 |
| Special Topics in AI: Deep Learning (CS 7180) | Spring 2019 |
| Machine Learning (CS 6140) | Fall 2018 |

INVITED TALK

Year 2022

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| Physics Informed Machine Learning conference, Los Alamos National Lab | May 2022 |
| Ames Lab, Scientific Machine Learning: Foundations and Applications | April 2022 |
| RIKEN, Predictive Science Seminar | Jan 2022 |
| John Hopkins University 2022 TRIPODS Winter School | Jan 2022 |

Year 2021

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| Keynote Speaker, KITP Machine Learning for Climate Conference | Nov 2021 |
| University of Washington, Data-Driven Methods for Science and Engineering Seminar | Oct 2021 |
| Caltech Explainable AI Virtual Workshop | Sep 2021 |
| CMU AI in Physics seminar | Sep 2021 |
| Georgia Tech Applied & Computational Math | Sep 2021 |
| KDD Lecture Style Tutorial | August 2021 |
| NASA Glenn Research Center | July 2021 |
| One World MINDS Seminar | July 2021 |
| RIKEN AIP Seminar, Japan | June 2021 |
| Institute for Pure & Applied Mathematics (IPAM), UCLA | May 2021 |
| AI Seminar, USC/ISI | May 2021 |
| CRUNCH Applied Math Group, Brown University | April 2021 |
| Featured Talk at NVIDIA GTC 2021 | March 2021 |
| Applied Math Department Colloquium, University of Arizona | Feb 2021 |
| Duke University, Deep Learning Reading Group | Feb 2021 |
| Oak Ridge National Laboratory Workshop on AI for Robust Engineering & Science | Jan 2021 |
| Year 2020 Machine Learning in Science and Engineering virtual conference | Dec 2020 |
| NeurIPS 2020 Workshop on Quantum Tensor Networks | Dec 2020 |
| NeurIPS 2020 Workshop on AI for Earth | Dec 2020 |
| NeurIPS 2020 Workshop on Interpretable Inductive Biases | Dec 2020 |
| AGU Fall Meeting Invited Talks | Dec 2020 |

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| Caltech Climate Modeling Alliance (CliMA) group | Nov 2020 |
| AAAI 2020 Symposium on Physics-Guided AI for Accelerating Scientific Discovery | Nov 2020 |
| LA Life Science Summit | Oct 2020 |
| COVID-19 Forecast Hub | Sep 2020 |
| International School and Conference on Network Science | Sep 2020 |
| ODSC Europe 2020 Virtual Conference | Sep 2020 |
| Mathematics of Data Science Virtual Lecture Series, Tufts, MA | June 2020 |
| Facebook Artificial Intelligence Research, Menlo Park, CA | April 2020 |
| Functional Data over Multidimensional Domain, EPFL, Switzerland, | April 2020 |
| AI for Robust Engineering and Science workshop, Oak Ridge National Lab | Jan 2020 |
| Physics Informed Machine Learning workshop, Los Alamos National Lab | Jan 2020 |
| Year 2019 | |
| Mitsubishi Electric Research Laboratories (MERL), Cambridge | Oct 2019 |
| Plenary Speaker , European Research Network on System Identification | Sep, 2019 |
| Hazy Research Group Seminar, Stanford University | August 2019 |
| KDD 2019 Tensor Methods Workshop, Anchorage | August 2019 |
| University of Connecticut, Connecticut | July 2019 |
| Google Research, Mountain View | July 2019 |
| Machine Learning Theory Workshop, Peking University, China | June 2019 |
| Auto Lab, University of Michigan, Ann Arbor | May 2019 |
| ICLR 2019 Workshop on Deep Generative Models, New Orleans | May 2019 |
| Tensor Working Group on Simons Foundation, New York | May 2019 |
| Workshop Low-rank Optimization and Applications, Leipzig, Germany | April 2019 |
| Young European Probabilists XV workshop, Eindhoven, Netherland | March 2019 |
| Lawrence Berkeley National Laboratory (LBNL) | March 2019 |
| Year 2018 | |
| Amazon Research, Palo Alto | Dec 2018 |

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| Salesforce Research, Palo Alto, | Dec 2018 |
| Machine Learning Group Seminar, Harvard, | Nov 28 2018 |
| Clinical Machine Learning Group Seminar, MIT, | Nov 13 2018 |
| Keynote Speaker , Climate Informatics 2018 (CI 2018), | Sep 2018 |
| Henry L. Pierce Laboratory Seminar Series, MIT, | Sep 12, 2018 |
| Japan RIKEN Center for Advanced Intelligence Project (AIP), Tokyo, | July 3, 2018 |
| Disney Research, Burbank, | May 22, 2018 |

Year 2017

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|---|----------------|
| Department of Management Science, University of Miami | Nov 18, 2017 |
| Department of Computing and Mathematical Sciences, Caltech | Oct 6, 2017 |
| Center of Data Science, New York University | March 30, 2017 |
| Department of Computer Science, Brown University | March 13, 2017 |
| School of Industrial and Systems Engineering, Georgia Institute of Technology | March 6, 2017 |
| College of Computer and Information Science, Northeastern University | March 3, 2017 |
| AI with The Best, Online Conference | Sep 17, 2016 |
| Computer Science Department, Stanford University | May 23, 2016 |

ACADEMIC SERVICE **Conference Organizing Committee**

Industry Expo Co-Chair, ICML (2022)
 Poster Chair, KDD (2020)
 Proceedings Chair, ACM SIGSPATIAL (2020)
 KITP: At the Crossroad of Physics and Machine Learning, 2019
 Proceedings Chair, WSDM (2018)
 Short Paper Chair, CIKM (2017)

Workshop Co-organizer

ICML Time Series Workshop, (2021, 2019, 2017)
 ICCV Simulation Technology for Embodied AI, 2021
 ICLR Workshop on Deep Learning for Simulation (2021)
 NeurIPS Workshop on Machine Learning for Engineering (2020)
 NIPS Woman in Machine Learning Workshop (2016)
 NIPS workshop on Learning with Tensors: Why Now and How? (2016)

Grant Reviewer/Panelist

Department of Energy (DOE) Review Panel (2020, 2019)

National Science Foundation (NSF) Review Panel (2022, 2021, 2019, 2018)

Senior Program Committee (or Area Chair)

ICML(2022, 2021, 2020), ICLR (2022, 2021), NeurIPS (2021, 2020), AAAI (2021), IJCAI (2020), SDM (2020)

Program Committee

ICML (2020, 2019, 2018), NeurIPS (2019, 2018), ICLR (2020, 2019), KDD (2019), AISTATS (2020, 2019), SDM (2019), AAAI (2018), IJCAI (2018), CIKM (2017), NIPS Time Series Workshop (2016), ICML Time Series Workshop (2016)

Reviewer AAAI 2021 Spring Symposium on Combining Machine Learning with Physical Sciences, Proceedings of IEEE (2019), Journal of Machine Learning Research (JMLR), Journal of Artificial Intelligence Research (JAIR), Transactions on Knowledge Discovery from Data (TKDD), IEEE Transactions on Knowledge and Data Engineering (TKDE), IEEE Intelligent Transportation Systems Transaction (ITS)