Kamyar Azizzadenesheli

Nvidia Corporation
Santa Clara, California

Homepage: `kamyar.page`

Research Interests

My research interest is mainly in the area of Machine Learning, from theory to practice. I work on topics including but not limited to Reinforcement Learning, Bandits, Applied Mathematics, Deep Learning, Neural Operators, Control Theory, Optimization, High Dimensional Statistics, Risk Assessment, Online learning, Domain adaptation, Active Learning, Robotics, Safety, Adversarial Attacks, and Generative models through both learning theory and core scientific lenses. I am actively working on trustworthy and domain specific AI solutions to real-world problems.

Current Positions

Research Staff, Nvidia Corporation *Since July 2022*
Santa Clara, CA, USA

Positions

- `Research Staff` at **Nvidia**, Santa Clara, CA, USA. *(April 2023-Present)*
- `Senior Research Scientist` at **Nvidia**, Santa Clara, CA, USA. *(July 2022-April 2023)*
- `Visiting Scholar` at **Caltech**, Pasadena , CA, USA. *(March 2024)*
  At the Geological and Planetary Sciences Division,
  Host: Prof. Zachary E. Ross.
- `Visiting Scholar` at **Caltech**, Pasadena , CA, USA. *(August 2023)*
  At the Computing + Mathematical Sciences Department,
  Host: Prof. Animashree Anandkumar.
- `Visiting Scholar` at **Caltech**, Pasadena , CA, USA. *(February 2023)*
  At the Geological and Planetary Sciences Division,
  Host: Prof. Zachary E. Ross.
- `Visiting Faculty` at **Caltech**, Pasadena , CA, USA. *(August 2021)*
  At the Geological and Planetary Sciences Division,
  Host: Prof. Zachary E. Ross.
  At the Computing + Mathematical Sciences Department,
  Host: Prof. Animashree Anandkumar.
- `Assistant Professor` at **Purdue University**, West Lafayette, IN, USA. *(August 2020-July 2022)*
- `Postdoctoral Scholar` at **Caltech**, Pasadena , CA, USA. *(July 2019-August 2020)*
  Hosts: Prof. Animashree Anandkumar & Prof. Yisong Yue
- `Special Student` at **Caltech**, Pasadena , CA, USA. *(April 2019-June 2019)*
  Hosts: Prof. Animashree Anandkumar & Prof. Yisong Yue

- `Visiting Researcher` at **Caltech**, Pasadena , CA, USA. *(June 2018-April 2019)*
  Hosts: Prof. Animashree Anandkumar & Prof. Yisong Yue
- `Visiting Researcher` at **Stanford University**, Palo Alto, CA, USA. *(October 2017-June 2018)*
  Host: Prof. Emma Brunskill
- `Long term visiting researcher` at **Simons Institute**, **UC Berkeley**, CA.*(Jan 2017-May 2017)*
- `Guest Researcher` at **INRIA, France**. *(August 2016-November 2016)*
  Host: Dr. Alessandro Lazaric
- `Short-term Visitor` at **MSR, New York City**, NY, USA. *(2016)*
  Host: Prof. Animashree Anandkumar
- `Short-term Visitor` at **MSR, New England**, MA, USA. *(2016)*
  Host: Prof. Animashree Anandkumar

Education

Ph.D. & M.Sc. in Electrical Engineering & Computer Science *2014-2019*
University of California, Irvine, CA, USA. Advised by Prof. Anima Anandkumar.

B.Sc. in Electrical Engineering *2010-2014*
Sharif University of Technology, Tehran, Iran. Advised by Prof. F. Ashtiani & Prof. F. Marvasti,

Awards and Honors

- **EECS Department Fellowship**, University of California, Irvine, CA, USA, 2014.
- **Silver Medal** in International Olympiad in Astronomy & Astrophysics, Beijing, China, 2010.
- **Gold Medal** in National Olympiad in Astronomy & Astrophysics, Tehran, Iran, 2009.
- **First rank elite student** in National Elite Foundation, Iran, 2009-2014.
- **Second prize** in Sharif RoboCup Competition, Machine vision section, Tehran, Iran, 2012.

Books

- **Deep Learning - The Straight Dope**, an online Deep Learning book on Amazon Mxnet Library. Zachary C. Lipton, Mu Li, Alex Smola, Sheng Zha, Aston Zhang, Joshua Z. Zhang, Eric Junyuan Xie, Kamyar Azizzadenesheli, Jean Kossaifi, Stephan Rabanser, `[link]`

Papers

Conference:

1. Md Ashiqur Rahman, Robert Joseph George, Mogab Elleithy, Daniel Leibovici, Zongyi Li, Boris Bonev, Colin White, Julius Berner, Raymond A Yeh, Jean Kossaifi, Kamyar Azizzadenesheli, Anima Anandkumar. Pretraining Codomain Attention Neural Operators for Solving Multiphysics PDEs
   Appeared at Neural Information Processing Systems, (NeurIPS), 2024
   `[paper]`

2. Minkai Xu, Jiaqi Han, Aaron Lou, Jean Kossaifi, Arvind Ramanathan, Kamyar Azizzadenesheli, Jure Leskovec, Stefano Ermon, Anima Anandkumar. Equivariant Graph Neural Operator for Modeling 3D Dynamics, 2024
Appeared at International Conference on Machine Learning (ICML) 2024
[paper]

3. Miguel Liu-Schiaffini, Julius Berner, Boris Bonev, Thorsten Kurth, Kamyar Azizzadenesheli, Anima Anandkumar. Neural Operators with Localized Integral and Differential Kernels, 2024
Appeared at International Conference on Machine Learning (ICML) 2024
[paper]

4. Helen Zhou, Audrey Huang, Kamyar Azizzadenesheli, David Childers, Zachary Lipton. Timing as an Action: Learning When to Observe and Act.
Appeared at The 27th International Conference on Artificial Intelligence and Statistics (AISTATs) 2024
[paper]

5. Colin White, Renbo Tu, Jean Kossaifi, Gennady Pekhimenko, Kamyar Azizzadenesheli, Anima Anandkumar. Guaranteed Approximation Bounds for Mixed-Precision Neural Operators.
Appeared at International Conference on Learning Representations (ICLR) 2024
[paper]

6. Haque Ishfaq, Qingfeng Lan, Pan Xu, A. Rupam Mahmood, Doina Precup, Anima Anandkumar, Kamyar Azizzadenesheli. Provable and Practical: Efficient Exploration in Reinforcement Learning via Langevin Monte Carlo.
Appeared at International Conference on Learning Representations (ICLR) 2024
[paper]

7. Zongyi Li, Nikola Borislavov Kovachki, Chris Choy, Boyi Li, Jean Kossaifi, Shourya Prakash Otta, Mohammad Amin Nabian, Maximilian Stadler, Christian Hundt, Kamyar Azizzadenesheli, Anima Anandkumar. Geometry-Informed Neural Operator for Large-Scale 3D PDEs, 2023
Appeared at Neural Information Processing Systems (NeurIPS)
[paper]

8. Abhijeet Vyas, Kamyar Azizzadenesheli. Competitive Gradient Optimization, 2022
Appeared at International Conference on Machine Learning (ICML) 2023.
[paper] [code]

9. Hongkai Zheng, Weili Nie, Arash Vahda, Kamyar Azizzadenesheli, Anima Anandkumar. Fast Sampling of Diffusion Models via Operator Learning,
Appeared at International Conference on Machine Learning (ICML) 2023.
[paper]

10. Sahin Lale, Yuanyuan Shi, Guannan Qu, Kamyar Azizzadenesheli, Adam Wierman, Anima Anandkumar. KCRL: Krasovskii-Constrained Reinforcement Learning with Guaranteed Stability in Nonlinear Dynamical Systems, 2022
Appeared at 62st IEEE Conference on Decision and Control(CDC), 2023.
[paper]

11. Mridul Agarwal, Vaneet Aggarwal, Kamyar Azizzadenesheli. Multi-Agent Multi-Armed Bandits with Limited Communication,
Appeared at Neural Information Processing Systems (NeurIPS) (Selected presentation from JMLR) 2023
[paper]

12. Zongyi Li, Miguel Liu-Schiaffini, Nikola Kovachki, Burigede Liu, Kamyar Azizzadenesheli, Kaushik Bhattacharya, Andrew Stuart, Anima Anandkumar. Learning Dissipative Dynamics in Chaotic Systems

Appeared at Neural Information Processing Systems (NeurIPS) 2022.
[paper]

13. Taylan Kargin, Sahin Lale, Kamyar Azizzadenesheli, Anima Anandkumar, Babak Hassibi. Thompson Sampling Achieves $\tilde{O}(\sqrt{T})$ Regret in Linear Quadratic Control
Appeared at Conference on Learning Theory (COLT) 2022.
[paper]

14. Pan Xu, Hongkai Zheng, Eric Mazumdar, Kamyar Azizzadenesheli, Anima Anandkumar. Langevin Monte Carlo for Contextual Bandits
Appeared at International Conference on Machine Learning (ICML) 2022.
[paper]

15. Liu Leqi, Audrey Huang, Zachary C. Lipton, Kamyar Azizzadenesheli. Supervised Learning with General Risk Functionals
Appeared at International Conference on Machine Learning (ICML) 2022.
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16. Audrey Huang, Liu Leqi, Zachary C. Lipton, Kamyar Azizzadenesheli. Off-Policy Risk Assessment for Markov Decision Processes
Appeared at International Conference on Artificial Intelligence and Statistics (AISTATS) 2022.
[paper]

17. Sahin Lale, Kamyar Azizzadenesheli, Babak Hassibi, Anima Anandkumar. Reinforcement Learning with Fast Stabilization in Linear Dynamical Systems
Appeared at International Conference on Artificial Intelligence and Statistics (AISTATS) 2022.
[paper]

18. Sahin Lale, Kamyar Azizzadenesheli, Babak Hassibi, Anima Anandkumar. Model Learning Predictive Control in Nonlinear Dynamical Systems
Appeared at 60th IEEE Conference on Decision and Control(CDC) 2021.
[paper]

19. Audrey Huang, Leqi Liu, Zachary C. Lipton, Kamyar Azizzadenesheli. Off-Policy Risk Assessment in Contextual Bandits
Appeared at Neural Information Processing Systems (NeurIPS) 2021.
[paper]

20. Guanya Shi, Kamyar Azizzadenesheli, Soon-Jo Chung, Yisong Yue. Meta-Adaptive Nonlinear Control: Theory and Algorithms
Appeared at Neural Information Processing Systems (NeurIPS) 2021.
[paper]

21. Sahin Lale, Kamyar Azizzadenesheli, Babak Hassibi, Anima Anandkumar. Finite-time System Identification and Adaptive Control in Autoregressive Exogenous Systems.
Appeared at Annual Conference on Learning for Dynamics and Control (L4DC), 2021.
[paper]

22. Soheil Esmaeilzadeh, Chiyu Max Jiang, Kamyar Azizzadenesheli, Karthik Kashinath, Mustafa Mustafa, Hamdi A Tchelepi, Philip Marcus, Mr Prabhat, Anima Anandkumar. A Deep Learning Based Physics Informed Continuous Spatio Temporal Super-Resolution Framework.
Bulletin of the American Physical Society, 2020.
[paper]

23. Zongyi Li, Nikola Kovachki, Kamyar Azizzadenesheli, Burigede Liu, Kaushik Bhattacharya, Andrew Stuart, Anima Anandkumar. Fourier Neural Operator for Parametric Partial Differential Equations,
Appeared at International Conference on Learning Representations (ICLR) 2021.
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24. Akella Ravi Tej, Kamyar Azizzadenesheli, Mohammad Ghavamzadeh, Yisong Yue, Anima Anandkumar. Deep Bayesian Quadrature Policy Optimization. *Appeared at AAAI Conference on Artificial Intelligence 2021 (AAAI-21)* .
[paper] [Code]

25. Manish Prajapat, Kamyar Azizzadenesheli, Alexander Liniger, Yisong Yue, Anima Anandkumar. Competitive Policy Optimization, 2020.
Appeared at The Conference on Uncertainty in Artificial Intelligence (UAI) 2021 .
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26. Zongyi Li, Nikola Kovachki, Kamyar Azizzadenesheli, Burigede Liu, Kaushik Bhattacharya, Andrew Stuart, Anima Anandkumar. Multipole Graph Neural Operator for Parametric Partial Differential Equations, 2020.
Appeared at Neural Information Processing Systems (NeurIPS) 2020.
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27. Chiyu (Max) Jiang, Soheil Esmaeilzadeh, Kamyar Azizzadenesheli, Karthik Kashinath, Mustafa Mustafa, Hamdi A. Tchelepi, Philip Marcus, Prabhat, Anima Anandkumar. MeshfreeFlowNet: A Physics-Constrained Deep Continuous Space-Time Super-Resolution Framework.
Appeared at SC20, The International Conference for High Performance Computing, Networking, Storage, and Analysis. **Best Paper Finalist**.
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28. Sahin Lale, Kamyar Azizzadenesheli, Babak Hassibi, Animashree Anandkumar. Logarithmic Regret Bound in Partially Observable Linear Dynamical Systems, 2020.
Appeared at Neural Information Processing Systems (NeurIPS) 2020.
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29. Sahin Lale, Kamyar Azizzadenesheli, Babak Hassibi, Animashree Anandkumar. Adaptive Control and Regret Minimization in Linear Quadratic Gaussian (LQG) Setting, 2021.
Appeared at American Control Conference ACC 2021 .
[paper]

30. Amy Zhang, Zachary C Lipton, Luis Pineda, Kamyar Azizzadenesheli, Animashree Anandkumar, Laurent Itti, Joelle Pineau, Tommaso Furlanello. Learning Causal State Representations of Partially Observable Environments,
Appeared at the Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM) 2019.
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31. Kamyar Azizzadenesheli. Maybe a few considerations in Reinforcement Learning Research?, 2019.
[paper]

32. Kamyar Azizzadenesheli, Anqi Liu, Fanny Yang, Animashree Anandkumar. Regularized Learning for Domain Adaptation under Label Shifts,
Appeared at International Conference on Learning Representations (ICLR) 2019.
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33. Jeremy Bernstein, Jiawei Zhao, Kamyar Azizzadenesheli, Anima Anandkumar. signSGD with Majority Vote is Communication Efficient and Fault Tolerant,
Appeared at International Conference on Learning Representations (ICLR) 2019.
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34. Guanya Shi, Xichen Shi, Michael O'Connell1, Rose Yu, Kamyar Azizzadenesheli, Animashree Anandkumar, Yisong Yue, and Soon-Jo Chung. Neural Lander: Stable Drone Landing Control using Learned Dynamics,
Appeared at International Conference on Robotics and Automation (ICRA) 2019 .
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35. Jeremy Bernstein, Yu-Xiang Wang, Kamyar Azizzadenesheli, Anima Anandkumar. signSGD: Compressed Optimisation for Non-Convex Problems,
Appeared at International Conference on Machine Learning (ICML) 2018.
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36. Guneet S. Dhillon, Kamyar Azizzadenesheli, Jeremy D. Bernstein, Jean Kossaifi, Aran Khanna, Zachary C. Lipton, Animashree Anandkumar. Stochastic activation pruning for robust adversarial defense,
Appeared at International Conference on Learning Representations (ICLR) 2017.
[paper]

37. Kamyar Azizzadenesheli, Animashree Anandkumar. Efficient Exploration through Bayesian Deep Q-Networks, *Appeared at Information Theory and Application (ITA 2018).*
[paper] [talk]

38. Kamyar Azizzadenesheli, Alessandro Lazaric, Anima Anandkumar. Reinforcement Learning in Rich Observation MDPs using Spectral Methods,
Appeared at Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM) 2017.
[paper]

39. Kamyar Azizzadenesheli, Alessandro Lazaric, Anima Anandkumar. Open Problem: Approximate Planning of POMDPs in the class of Memoryless Policies,
Appeared at Conference on Learning Theory (COLT), 2016
[paper] [talk]

40. Kamyar Azizzadenesheli, Alessandro Lazaric, Anima Anandkumar. Reinforcement Learning of POMDPs using Spectral Methods,
Appeared at Conference on Learning Theory (COLT), 2016
[paper] [talk]

Journal:

41. Enrique Alvarez Fanjul, S Ciliberti, J Pearlman, Kirsten Wilmer-Becker, Pierre Bahurel, Fabrice Ardhuin, Alain Arnaud, Kamyar Azizzadenesheli, Roland Aznar, M Bell, Laurent Bertino, S Behera, G Brassington, Jan-Bart Calewaert, Arthur Capet, Eric Chassignet, Stefano Ciavatta, Mauro Cirano, Emanuela Clementi, Loreta Cornacchia, Gianpiero Cossarini, Gianpaolo Coro, Stuart Corney, Fraser Davidson, Marie Drevillon, Yann Drillet, Renaud Dussurget, Ghada El Serafy, Giles Fearon, Katja Fennel, David Ford, Olivier Le Galloudec, Xinmei Huang, Jean-Michel Lellouche, Patrick Heimbach, Fabrice Hernandez, Patrick Hogan, Ibrahim Hoteit, Sudheer Joseph, Simon Josey, P-Y Le Traon, Simone Libralato, Marco Mancini, Matthew Martin, Pascal Matte, Terence McConnell, Angelique Melet, Yasumasa Miyazawa, Andrew M Moore, Antonio Novellino, Fearghal O'Donncha, Andrew Porter, Fangli Qiao, Heather Regan, Jonah Robert-Jones, Sivareddy Sanikommu, Andreas Schiller, John Siddorn, Marcos G Sotillo, Joanna Staneva, Cecile Thomas-Courcoux, Pramod Thupaki, Marina Tonani, JM Garcia Valdecasas, Jennifer Veitch, Karina Von Schuckmann, Liying Wan, John Wilkin, Aihong Zhong, Romane Zufic. Promoting best practices in ocean forecasting through an Operational Readiness Level,
Appeared at Frontiers in Marine Science, 2024.
[paper]

42. Sahin Lale, Peter I Renn, Kamyar Azizzadenesheli, Babak Hassibi, Morteza Gharib, Anima Anandkumar. FALCON: Fourier Adaptive Learning and Control for Disturbance Rejection Under Extreme Turbulence,
Appeared in Nature Robotics, 2024.
[paper]

43. Caifeng Zou, Kamyar Azizzadenesheli, Zachary E. Ross, Robert W. Clayton. Deep Neural Helmholtz Operators for 3D Elastic Wave Propagation and Inversion, 2024
Appeared in Geophysical Journal International, 2024.
[paper]

44. Ziqi Ma, David Pitt, Kamyar Azizzadenesheli, Anima Anandkumar. Calibrated Uncertainty Quantification for Operator Learning via Conformal Prediction,
Appeared at Transaction of Machine Learning Research (TMLR), 2024.
[paper]

45. Jean Kossaifi, Nikola Kovachki, Kamyar Azizzadenesheli, Anima Anandkumar. Multi-Grid Tensorized Fourier Neural Operator for High-Resolution PDEs
Appeared at Transaction of Machine Learning Research (TMLR), 2024.
[paper]

46. Kamyar Azizzadenesheli, William Lu, Anuran Makur, Qian Zhang. Sparse Contextual CDF Regression,
Appeared at Transaction of Machine Learning Research (TMLR), 2024.
[paper]

47. Qian Zhang, Anuran Makur, Kamyar Azizzadenesheli. Functional Linear Regression of Cumulative Distribution Functions,
Appeared at Transaction of Machine Learning Research (TMLR), 2024.
[paper]

48. Kamyar Azizzadenesheli, Nikola Kovachki, Zongyi Li, Miguel Liu-Schiaffini, Jean Kossaifi, Anima Anandkumar. Neural Operators for Accelerating Scientific Simulations and Design, 2023
Appeared at Nature Reviews Physics, 2024.
[paper]

49. Yaozhong Shi, Grigorios Lavrentiadis, Domniki Asimaki, Zachary E. Ross, Kamyar Azizzadenesheli. Broadband Ground Motion Synthesis via Generative Adversarial Neural Operators: Development and Validation,
Appeared at Bulletin of the Seismological Society of America, 2024.
[paper]

50. Zongyi Li, Hongkai Zheng, Nikola Kovachki, David Jin, Haoxuan Chen, Burigede Liu, Kamyar Azizzadenesheli, Anima Anandkumar. Physics-Informed Neural Operator for Learning Partial Differential Equations, 2023
Appeared at ACM/IMS Journal of Data Science, 2023.
[paper]

51. Hongyu Sun, Zachary E. Ross, Weiqiang Zhu, Kamyar Azizzadenesheli. Phase Neural Operator for Multi-Station Picking of Seismic Arrivals, 2023
Appeared at Geophysical Research Letters, 2023.
[paper][Media] [Code]

52. Md Ashiqur Rahman, Zachary E. Ross, Kamyar Azizzadenesheli. U-NO: U-shaped Neural Operators, 2022
Appeared at Transaction of Machine Learning Research (TMLR), 2023.
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53. Nikola Kovachki, Zongyi Li, Kamyar Azizzadenesheli, Burigede Liu, Kaushik Bhattacharya, Andrew Stuart, Anima Anandkumar. Neural Operator: Learning Maps Between Function Spaces With Applications to PDEs
Appeared at Journal of Machine Learning Research (JMLR), 2023
[paper]

54. Hongyu Sun, Yan Yang, Kamyar Azizzadenesheli, Robert W Clayton, Zachary E Ross. Accelerating Time-Reversal Imaging with Neural Operators for Real-time Earthquake Locations, 2022
Appeared at International Geoscience and Remote Sensing Symposium, 2023
[paper]

55. Jianwen Li, Jalil Chavez-Galaviz, Kamyar Azizzadenesheli, Nina Mahmoudian. Dynamic Obstacle Avoidance for USVs Using Cross-Domain Deep Reinforcement Learning and Neural Network Model Predictive Controller
Appeared at Sensors, 2023.
[paper]

56. Yan Yang, Angela F. Gao, Kamyar Azizzadenesheli, Robert W. Clayton, Zachary E. Ross. Rapid Seismic Waveform Modeling and Inversion with Universal Neural Operators
Appeared at IEEE Transactions on Geoscience and Remote Sensing, 2023.
[paper]

57. Gege Wen, Zongyi Li, Qirui Long, Kamyar Azizzadenesheli, Anima Anandkumar, and Sally M. Benson1. Real-time high-resolution CO2 geological storage prediction using nested Fourier neural operators
Appeared at Energy and Environmental Science, 2023.
[paper] [package] [talk] [blog]

58. Md Ashiqur Rahman, Manuel A. Florez, Anima Anandkumar, Zachary E. Ross, Kamyar Azizzadenesheli. Generative Adversarial Neural Operators
Appeared at Transaction of Machine Learning Research (TMLR), 2022.
[paper] [code]

59. Victor D. Dorobantu, Kamyar Azizzadenesheli, and Yisong Yue. Compactly Restrictable Metric Policy Optimization Problems
Appeared at IEEE Transactions on Automatic Control, 2022.
[paper]

60. Mridul Agarwal, Vaneet Aggarwal, Kamyar Azizzadenesheli. Multi-Agent Multi-Armed Bandits with Limited Communication,
Appeared at Journal of Machine Learning Research (JMLR), 2022 (Selected presentation at Neurips)
[paper]

61. Michael O'Connell, Guanya Shi, Xichen Shi, Kamyar Azizzadenesheli, Anima Anandkumar, Yisong Yue, Soon-Jo Chung. Neural-Fly enables rapid learning for agile flight in strong winds,
Appeared at Science Robotics, 2022. [paper] [media] [demo] [package]

62. Jafar Abbaszadeh Chekan, Kamyar Azizzadenesheli, Cedric Langbort. Joint Stabilization and Regret Minimization through Switching in Systems with Actuator Redundancy, 2021
Appeared at IFAC Symposium on Robust Control Design ROCOND 2022, 2022
[paper]

63. Gege Wen, Zongyi Li, Kamyar Azizzadenesheli, Anima Anandkumar, Sally M. Benson. U-FNO - an enhanced Fourier neural operator based-deep learning model for multiphase flow,
Appeared at Advances in Water Resources, Elsevier, 2022. [paper] [software] [blog post] [media]

64. Yan Yang, Angela F. Gao, Jorge C. Castellanos, Zachary E. Ross, Kamyar Azizzadenesheli, Robert W. Clayton. Seismic wave propagation and inversion with Neural Operators
Appeared at The Seismic Record Journal, 2021.
[paper]

65. Burigede Liu, Nikola Kovachki, Zongyi Li, Kamyar Azizzadenesheli, Anima Anandkumar, Andrew Stuart, Kaushik Bhattacharya. A learning-based multiscale method and its application to inelastic impact problems,
Appeared at Journal of the Mechanics and Physics of Solids, 2021.
[paper]

66. Kamyar Azizzadenesheli. Importance Weight Estimation and Generalization in Domain Adaptation under Label Shift.
Appeared at the IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021
[paper]

67. K. Kashinath, M. Mustafa, A. Albert, J-L. Wu, C. Jiang, S. Esmaeilzadeh, Kamyar. Azizzadenesheli, R. Wang, A. Chattopadhyay, A. Singh, A. Manepalli, D. Chirila, R. Yu, R. Walters, B. White, H. Xiao, H. A. Tchelepi, P. Marcus, A. Anandkumar, P. Hassanzadeh and Prabhat. Physics-informed machine learning: case studies for weather and climate modelling,
Appeared at The Royal Society, 2021.
[paper]

68. Jonathan D. Smith, Zachary E. Ross, Kamyar Azizzadenesheli, Jack B. Muir. HypoSVI: Hypocenter inversion with Stein variational inference and Physics Informed Neural Networks.
Appeared at Geophysical Journal International, 2021.

69. Zachary E Ross, Daniel T Trugman, Kamyar Azizzadenesheli, Animashree Anandkumar. Directivity Modes of Earthquake Populations with Unsupervised Learning,
Appeared at the Journal of Geophysical Research 2020,
[paper]

Workshop:

70. Anirban Chandra, Marius Koch, Suraj Pawar, Aniruddha Panda, Kamyar Azizzadenesheli, Jeroen Snippe, Faruk O. Alpak, Farah Hariri, Clement Etienam, Pandu Devarakota, Anima Anandkumar, Detlef Hohl. Fourier Neural Operator based surrogates for CO2 storage in realistic geologies, 2024
Appeared in AI4Science Workshop ICML 2024.
[paper]

71. Colin White, Julius Berner, Jean Kossaifi, Mogab Elleithy, David Pitt, Daniel Leibovici, Zongyi Li, Kamyar Azizzadenesheli, Anima Anandkumar. Physics-Informed Neural Operators with Exact Differentiation on Arbitrary Geometries, 2023
Appeared in the Symbiosis of Deep Learning and Differential Equations III NeurIPS 2023.
[paper]

72. Michael O'Connell, Guanya Shi, Xichen Shi, Kamyar Azizzadenesheli, Anima Anandkumar, Yisong Yue, Soon-Jo Chung. Pretraining Neural-Networks with Neural-Fly for Rapid Online Learning, 2023
Appeared in the Workshop on Pretraining4Robotics LightningICRA 2023.
[paper]

73. Michael O'Connell, Guanya Shi, Xichen Shi, Kamyar Azizzadenesheli, Anima Anandkumar, Yisong Yue, Soon-Jo Chung. Pretraining Neural-Networks with Neural-Fly for Rapid Online Learning,
Appeared in the Workshop on Pretraining for Robotics PT4R, International Conference on Robotics and Automation ICRA 2022.
[paper]

74. Hongkai Zheng, Weili Nie, Arash Vahda, Kamyar Azizzadenesheli, Anima Anandkumar. Fast Sampling of Diffusion Models via Operator Learning,
Appeared in the Score-Based Methods Workshop at Neurips 2022.
[paper]

75. Andre Graubner, Morteza Mardani, Jaideep Pathak, Karthik Kashinath, Mike Pritchard, Kamyar Azizzadensheli, Anima Anandkumar. Calibration of Large Neural Weather Models,
Appeared in the Tackling Climate Change with Machine Learning Workshop at Neurips 2022.
[paper]

76. Sahin Lale, Kamyar Azizzadenesheli, Babak Hassibi, Animashree Anandkumar. Stochastic Linear Bandits with Hidden Low Rank Structure,
Early version appeared at Neural Information Processing Systems (NeurIPS) 2019 Workshop.
[paper]

77. Sahin Lale, Kamyar Azizzadenesheli, Babak Hassibi, Animashree Anandkumar. Regret Minimization in Partially Observable Linear Quadratic Control,
Early version appeared at Neural Information Processing Systems (NeurIPS) 2019 Workshop.
[paper]

78. William Wong, Liu Leqi, Audrey Huang, Kamyar Azizzadenesheli, Zachary C. Lipton. RiskyZoo: A Library for Risk-Sensitive Supervised Learning,
Appeared in the Responsible Decision Making in Dynamic Environments Decision Workshop at ICML 2022.
[paper]

79. Zongyi Li, Hongkai Zheng, Nikola Kovachki, David Jin, Haoxuan Chen, Burigede Liu, Kamyar Azizzadenesheli, Anima Anandkumar. Physics-Informed Neural Operator for Learning Partial Differential Equations,
Appeared in the Continuous Time Methods Workshop at ICML 2022.
[paper][code]

80. Jaideep Pathak, Shashank Subramanian, Peter Harrington, Sanjeev Raja, Ashesh Chattopadhyay, Morteza Mardani, Thorsten Kurth, David Hall, Zongyi Li, Kamyar Azizzadenesheli, Pedram Hassanzadeh, Karthik Kashinath, Animashree Anandkumar. FourCastNet: A Global Data-driven High-resolution Weather Model using Adaptive Fourier Neural Operators,
Appeared in the AI for Earth and Space Science at ICLR 2022.
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81. Zongyi Li, Nikola Kovachki, Kamyar Azizzadenesheli, Burigede Liu, Kaushik Bhattacharya, Andrew Stuart, Anima Anandkumar. Neural Operator: Graph Kernel Network for Partial Differential Equations,
Appeared at International Conference on Learning Representations (ICLR) 2020 Workshop.
[paper][Code][Blog Post]

82. Kamyar Azizzadenesheli, Brandon Yang, Weitang Liu, Zachary C Lipton, Animashree Anandkumar. Surprising Negative Results for Generative Adversarial Tree Search,
Appeared at International Conference on Machine Learning (ICML) 2018 workshop.
[paper]

83. Jeremy Bernstein, Kamyar Azizzadenesheli, Yu-Xiang Wang, Anima Anandkumar. Compression by the signs: distributed learning is a two-way street,
Appeared at International Conference on Learning Representations (ICLR) 2018 Workshop.
[paper]

84. Zachary C. Lipton, Kamyar Azizzadenesheli, Abhishek Kumar, Lihong Li, Jianfeng Gao, Li Deng. Combating Reinforcement Learning's Sisyphean Curse with Intrinsic Fear,
Appeared at Neural Information Processing Systems (NeurIPS) 2016 Workshop.
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85. Kamyar Azizzadenesheli, Alessandro Lazaric, Anima Anandkumar. Experimental paper: Reinforcement Learning of POMDPs using Spectral Methods,
Appeared at Neural Information Processing Systems (NeurIPS) 2016 Workshop.
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Papers:

86. Haoyu Yang, Kamyar Azizzadenesheli, Haoxing Ren. Deep Physics Prior for First Order Inverse Optimization, 2025
[paper]

87. Napat Tainpakdipat, Mohamed Abdelmeguid, Chunhui Zhao, Kamyar Azizzadenesheli, Ahmed Elbanna. Fourier Neural Operators for Accelerating Earthquake Dynamic Rupture Simulations, 2025
[paper]

88. Ryan Y Lin, Julius Berner, Valentin Duruisseaux, David Pitt, Daniel Leibovici, Jean Kossaifi, Kamyar Azizzadenesheli, Anima Anandkumar. Enabling Automatic Differentiation with Mollified Graph Neural Operators, 2025
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89. Bahareh Tolooshams, Lydia Lin, Thierri Callier, Jiayun Wang, Sanvi Pal, Aditi Chandrashekar, Claire Rabut, Zongyi Li, Chase Blagden, Sumner L Norman, Kamyar Azizzadenesheli, Charles Liu, Mikhail G. Shapiro, Richard A. Andersen, Anima Anandkumar. VARS-fUSI: Variable Sampling for Fast and Efficient Functional Ultrasound Imaging using Neural Operators, 2025
[paper]

90. Caifeng Zou, Zachary E. Ross, Robert W. Clayton, Fan-Chi Lin, Kamyar Azizzadenesheli. Ambient Noise Full Waveform Inversion with Neural Operators, 2025
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91. Qingkai Kong, Caifeng Zou, Youngsoo Choi, Eric M. Matzel, Kamyar Azizzadenesheli, Zachary E. Ross, Arthur J. Rodgers, Robert W. Clayton. Reducing Frequency Bias of Fourier Neural Operators in 3D Seismic Wavefield Simulations Through Multi-Stage Training, 2025
[paper]

92. Chris Choy, Alexey Kamenev, Jean Kossaifi, Max Rietmann, Jan Kautz, Kamyar Azizzadenesheli. Factorized Implicit Global Convolution for Automotive Computational Fluid Dynamics Prediction, 2025
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93. Yaozhong Shi, Zachary E. Ross, Domniki Asimaki, Kamyar Azizzadenesheli. Stochastic Process Learning via Operator Flow Matching, 2025
[paper] [code]

94. Jiayun Wang, Oleksii Ostras, Masashi Sode, Bahareh Tolooshams, Zongyi Li, Kamyar Azizzadenesheli, Gianmarco Pinton, Anima Anandkumar. Ultrasound Lung Aeration Map via Physics-Aware Neural Operators, 2025
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95. Jean Kossaifi, Nikola Kovachki, Zongyi Li, Davit Pitt, Miguel Liu-Schiaffini, Robert Joseph George, Boris Bonev, Kamyar Azizzadenesheli, Julius Berner, Anima Anandkumar. A Library for Learning Neural Operators, 2024
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96. Shoaib Ahmed Siddiqui, Jean Kossaifi, Boris Bonev, Christopher Choy, Jan Kautz, David Krueger, Kamyar Azizzadenesheli. Exploring the design space of deep-learning-based weather forecasting systems, 2024
[paper]

97. Zelin Zhao, Zongyi Li, Kimia Hassibi, Kamyar Azizzadenesheli, Junchi Yan, H Jane Bae, Anima Anandkumar. Physics-informed Neural-operator Predictive Control for Drag Reduction in Turbulent Flows, 2024
[paper]

98. Jingtong Sun, Julius Berner, Lorenz Richter, Marius Zeinhofer, Johannes Müller, Kamyar Azizzadenesheli, Anima Anandkumar. Dynamical Measure Transport and Neural PDE Solvers for Sampling, 2024
[paper]

99. Yaozhong Shi, Angela F. Gao, Zachary E. Ross, Kamyar Azizzadenesheli. Universal Functional Regression with Neural Operator Flows, 2024
[paper] [code]

100. Minkai Xu, Jiaqi Han, Aaron Lou, Jean Kossaifi, Arvind Ramanathan, Kamyar Azizzadenesheli, Jure Leskovec, Stefano Ermon, Anima Anandkumar. Equivariant Graph Neural Operator for Modeling 3D Dynamics, 2024
[paper]

101. Suyash Bire, Björn Lütjens, Kamyar Azizzadenesheli, Anima Anandkumar, Christopher N. Hill. Ocean Emulation with Fourier Neural Operators: Double Gyre, 2023
[paper]

102. Miguel Liu-Schiaffini, Clare E. Singer, Nikola Kovachki, Tapio Schneider, Kamyar Azizzadenesheli, Anima Anandkumar. Tipping Point Forecasting in Non-Stationary Dynamics on Function Spaces, 2023
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103. Colin White, Renbo Tu, Jean Kossaifi, Gennady Pekhimenko, Kamyar Azizzadenesheli, Anima Anandkumar. Speeding up Fourier Neural Operators via Mixed Precision, 2023
[paper]

104. Xuan Zhang, Limei Wang, Jacob Helwig, Youzhi Luo, Cong Fu, Yaochen Xie, Meng Liu, Yuchao Lin, Zhao Xu, Keqiang Yan, Keir Adams, Maurice Weiler, Xiner Li, Tianfan Fu, Yucheng Wang, Haiyang Yu, YuQing Xie, Xiang Fu, Alex Strasser, Shenglong Xu, Yi Liu, Yuanqi Du, Alexandra Saxton, Hongyi Ling, Hannah Lawrence, Hannes Stärk, Shurui Gui, Carl Edwards, Nicholas Gao, Adriana Ladera, Tailin Wu, Elyssa F Hofgard, Aria Mansouri Tehrani, Rui Wang, Ameya Daigavane, Montgomery Bohde, Jerry Kurtin, Qian Huang, Tuong Phung, Minkai Xu, Chaitanya K Joshi, Simon V Mathis, Kamyar Azizzadenesheli, Ada Fang, Alán Aspuru-Guzik, Erik Bekkers, Michael Bronstein, Marinka Zitnik, Anima Anandkumar, Stefano Ermon, Pietro Liò, Rose Yu, Stephan Günnemann, Jure Leskovec, Heng Ji, Jimeng Sun, Regina Barzilay, Tommi Jaakkola, Connor W Coley, Xiaoning Qian, Xiaofeng Qian, Tess Smidt, Shuiwang Ji. Artificial Intelligence for Science in Quantum, Atomistic, and Continuum Systems, 2023
[paper]

105. Kamyar Azizzadenesheli, Trung Dang, Aranyak Mehta, Alexandros Psomas, Qian Zhang. Reward Selection with Noisy Observations, 2023
[paper]

106. Taylan Kargin, Sahin Lale, Kamyar Azizzadenesheli, Anima Anandkumar, Babak Hassibi. Thompson Sampling for Partially Observable Linear-Quadratic Control, 2023
[paper]

107. Jae Hyun Lim, Nikola B. Kovachki, Ricardo Baptista, Christopher Beckham, Kamyar Azizzadenesheli, Jean Kossaifi, Vikram Voleti, Jiaming Song, Karsten Kreis, Jan Kautz, Christopher Pal, Arash Vahdat, Anima Anandkumar. Score-based Diffusion Models in Function Space, 2023
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108. Zachary E. Ross, Weiqiang Zhu, Kamyar Azizzadenesheli. Neural mixture model association of seismic phases, 2023
[paper]

109. Md Ashiqur Rahman, Jasorsi Ghosh, Hrishikesh Viswanath, Kamyar Azizzadenesheli, Aniket Bera. PaCMO: Partner Dependent Human Motion Generation in Dyadic Human Activity using Neural Operators, 2022
[paper]

110. Audrey Huang, Liu Leqi, Zachary C. Lipton, Kamyar Azizzadenesheli. On the Convergence and Optimality of Policy Gradient for Coherent Risk , 2021
[paper]

111. Kamyar Azizzadenesheli, Yisong Yue, Animashree Anandkumar. Policy Gradient in Partially Observable Environments: Approximation and Convergence, 2020.
[paper]

Thesis

∗ Kamyar Azizzadenesheli. Reinforcement Learning in Structured and Partially Observable Environments, 2019. [Thesis]

Talks and Interviews

*some contains links

- Talk: "Neural Operators: A New Era of Scientific Computing", ISCL, Penn State University, Centre County, PA, USA, *(March, 2025)*
- Talk: "Neural Operators: A New Era of Scientific Computing", ODSC West, San Francisco, CA, USA, *(October, 2024)*
- Talk: "Generative AI on function spaces", Georgia Institute of Technology, Atlanta, GA, USA, *(October, 2024)*
- Talk: "Machine Learning on Functions", University of Washington, Seattle, WA, USA, *(October, 2024)*
- Keynote: "Machine Learning on Functions", Amazon Conference, California, USA, *(Sep, 2024)*
- Talk: "Neural Operators", DataFest, Yerevan, Armenia, *(Sep, 2024)*
- Invited Talk: "Neural Operators for Scientific Computing", Quantum Photonics, Clubhouse *(August, 2024)*
- Talk: "Neural Operators", ICML Tutorial, *(July, 2024)* [Slides]
- Podcast: This Week in Machine Learning AI (TWIML AI) by Sam Charrington *(Feb, 2024)*
- Talk: "Neural Operators", Siemens, *(Dec, 2023)*
- Talk: "Neural Operators", Extrality, *(Dec, 2023)*
- Talk: "Neural Operators", NASA, *(Sep, 2023)*
- Talk: "Neural Operators", Johns Hopkins University Lecture, Baltimore, Maryland, *(April, 2023)*
- Keynote speaker: "AAAI 2023 Spring Symposium Series", AAAI, San Francisco *(March, 2023)*
- Panel: "AAAI 2023 Spring Symposium Series", AAAI, San Francisco *(March, 2023)*
- Talk: "AI Technology to Enable Net Zero", GTC, Santa Clara *(March, 2023)*
- Invited Talk: "Neural Operators for Scientific Computing", Quantum Photonics, Clubhouse *(Sep, 2022)*
- Invited Talk: "Neural Operators for Scientific Computing", SIAM, San Diego *(Sep, 2022)*
- Invited Talk: "Neural Operators, Learn to Solve Partial Differential Equations", NASA *(Sep, 2022)*
- Invited Talk: "Neural Operators, Learn to Solve Partial Differential Equations", AMAZON *(Jun, 2022)*

• `Invited Talk:` "Neural Operators, Learn to Solve Partial Differential Equations", NVIDIA *(Jun, 2022)*

• `Invited Talk:` "Neural Operators, Learn to Solve Partial Differential Equations", Alan Turing Institute *(March, 2022)*
— UK's national data science & AI centre

• `Invited Talk:` "Neural Operators, Learn to Solve Partial Differential Equations", The University of Sydney *(March, 2022)*

• `Invited Talk:` "Neural Operators, Learn to Solve Partial Differential Equations", Baidu Research *(March, 2022)*

• `Podcast:` This Week in Machine Learning AI (TWIML AI) by Sam Charrington *(Feb, 2022)*

• `Invited Talk:` "Neural Operators, Learn to Solve Partial Differential Equations", Gypsum Seminar *(Nov, 2021)*
— The GeodesY and geoPhysics Seminar of the Upper Midwest.

• `Invited Talk:` "A Crash Course on Neural Operators", British Mathematical Colloquium (BMC) *(April, 2021)*
— The British Mathematical Colloquium (BMC) is the largest pure mathematical conference to be held annually in the UK.

• `Podcast:` TalkRL by Robin R Chauhan *(October, 2019)*

• `Invited Talk:` "Statistical Learning Theory in Practice", UC. San Diego, CA, USA *(March, 2019)*
— The THEORY SEMINAR at UC San Diego, department of Computer Science and Engineering, mainly organized by Shachar Lovett.

• `Invited Talk:` Reinforcement Learning in Structured Environments, UT Austin, Tx, USA *(October, 2018)*
— An invited talk hosted by Alexandros G Dimakis of UT Austin,

• `Podcast:` This Week in Machine Learning AI (TWIML AI) by Sam Charrington *(August, 2018)*

• `Talk:` "Exploration in Reinforcement Learning workshop", International Conference on Machine Learning (ICML) 2018, Stockholm, Sweden *(July, 2018)* — A talk on my recent work on Exploration in Reinforcement Learning

• `Invited Talk:` "Bayesian deep Reinforcement Learning", Stanford, CA, USA *(May, 2018)*
— An invited talk hosted by Machine Learning group at Stanford

• `Invited Talk:` "Efficient Exploration Through Bayesian Deep Q-Networks ", Information Theory and Applications Workshop, (ITA), San Diego, CA, USA *(February, 2018)*

• `Invited Talk:` "Reinforcement Learning in rich observable environment", Stanford, CA, USA *(February, 2018)*
— An invited talk hosted by Machine Learning group at Stanford

• `Talk:` at MLTrainon workshop, NeurIPS 2017, Long Beach, CA, USA *(December, 2017)*
A talk on my recent work on Exploration in Reinforcement Learning

• `Invited talk:` at Amazon AWS, Palo Alto, CA, USA *(April, 2017)*

• `Invited Talk:` at "Interactive Learning" workshop, Simons Institute, UC Berkeley, CA, USA *(Feb, 2017)*

• `Invited Talk:` "RL of Partially Observable Environment", Caltech, CA, USA *(Jan, 2017)*
— An invited talk hosted by Yisong Yue of Caltech,

- `Talk:` at "Open Problem" , *Colombia University, (COLT), (June, 2016)*
- `Talk:` at "Bandit and Reinforcement Learning", *Colombia University, (COLT), (June, 2016)*

Certifications

- `Certified:` in "Topological Data Analysis" *NSF-CBMS, (June, 2016)*

Media Coverage

- *The Year in Math and Computer Science* – by "Quanta Magazine", *(Dec, 2021)*
- *Latest Neural Nets Solve World's Hardest Equations Faster Than Ever Before* – by "Quanta Magazine", *(April, 2021)*
- *AI has cracked a key mathematical puzzle for understanding our world* – by "MIT Technology Review", *(October, 2020)*
- *Caltech Open-Sources FNO: A Deep Learning Method For Solving PDEs (Partial differential equations)* – by "MarkTechPost", *(January, 2021)*
- *Caltech Open-Sources AI for Solving Partial Differential Equations* – by "InfoQ", *(Dec, 2020)*
- *"Neural Lander" Uses AI to Land Drones Smoothly* – by "Caltech news", *(May, 2019)*
- *Drone Uses AI to Overcome Turbulence* – by "dronebelow", *(May, 2019)*
- *Neural Network Provides Stable Drone Landing* – by "dronebelow", *(November, 2018)*

Students at the Purdue University

Ph.D. students:

- Abhijeet Vyas, *T*opic: Online Meta Learning
- Mirza Masfiqur Rahman, *T*opic: Neural Operator
- Md Ashiqur Rahman, *T*opic: Domain Adaptation
- Qifan Zhang, *T*opic: Risk Assessment

Masters students:

- Vivek Gupta, *T*opic: Bayesian Decision Making

Undergraduate students:

- David Kim, *T*opic: Non-Convex problems in Linear Algebra
- Shatayu Kulkarni, *T*opic: Algorithmic Games

Service on M.Sc./Ph.D. Thesis Committees

Masters:

- Xia Tian, `Purdue University`, *(To be held)*
- Siddharth Divi, `Purdue University`, *(June, 2021)*
- Manish Prajapat, `ETH Zürich`, *(Dec, 2020)*

Ph.D.:

- Zijie Li, `Carnegie Mellon University`, *(Graduated, 2025)*
- Napat Tainpakdipat, `University of Illinois Urbana-Champaign`, *(Graduated, 2025)*
- Zhuoyuan (Jacob) Wang, `Carnegie Mellon University`, *(Graduated, 2025)*
- Jingya Wang, `Purdue University`, *(Graduated, 2023)*
- Fnu Chandra Mouli Sekar, `Purdue University`, *(To be held)*
- Xu Qiuling, `Purdue University`, *(Graduated)*
- Nan Jiang, `Purdue University`, *(To be held)*
- Yuantong Li, `Purdue University`, *(To be held)*
- Xin Cheng, `Purdue University`, *(To be held)*
- Tinghan Yang, `Purdue University`, *(To be held)*
- Victor Dorobantu, `Caltech`, *(Graduated May 2023)*
- Zijie Li, `Purdue`, *(Graduated November 2024)*

Teaching Assignments

- CS59300-RL Spring 2021 Reinforcement Learning
- CS47100-AI Fall 2021 Artificial Intelligence
- CS59000-AI Spring 2021 Artificial Intelligence (Newly developed course)
- CS59000-RL Fall 2020 Reinforcement Learning (Newly developed course)

Administration Services at the Purdue University

- Updating the graduate student admissions website to emphasize on TOEFL requirement of 80 instead of 100.
- Leading the attempt to make the graduate Artificial Intelligence as a core course
- Leading the effort to pass an important campus wide admission rule that removes the requirement for official transcripts form graduate student admission requirements
- Participate in faculty hiring in 2020
- Member of faculty hiring team in 2021
- Leading the effort to change the name of the artificial intelligence cohort and its descriptions
- Leading the effort to update the area study of our Master program.

Professional Services

Reviewer (Program Chair member):

- Journal of Machine Learning Research (JMLR)
- Association for Computing Machinery (ACM) SIGMETRICS
- International Journal of Computational Linguistics and Applications (IJCLA)
- Association for the Advancement of Artificial Intelligence (AAAI)
- Conference on Learning Theory (COLT)
- International Conference on Learning Representations (ICLR)
- International Conference on Machine Learning (ICML)
- International Conference on Machine Learning, Optimization, and Data Science (LOD)
- Conference on Neural Information Processing Systems (NeurIPS)
- Multidisciplinary Conference on Reinforcement Learning and Decision Making (RLDM)
- Institute of Electrical and Electronics Engineers (IEEE)
- Springer Nature
- Artificial Intelligence and Statistics (AISTAT)
- Conference on Decision and Control (CDC)
- The Conference on Uncertainty in Artificial Intelligence (UAI)
- Journal of Computational Physics

Area Chair:

- "Area Chair" Conference on Neural Information Processing Systems (NeurIPS)
- "Senior Program Committee" Association for the Advancement of Artificial Intelligence (AAAI)

Organizer:

- Co-Organizer: "D3S3: Data-driven and Differentiable Simulations, Surrogates, and Solvers" at `Neural Information Processing Systems (NeurIPS 2024`, with Tribhuvanesh Orekondy, Arash Behboodi, Emilia Magnani, Philipp Hennig, Paris Perdikaris.
  `[Link]`
- Co-Organizer: "Challenges in Data-Driven, Optimization-Based Control" at `Control Systems Society (CDC) 2022` an Invited Session with Cedric Langbort

Chair:

- Session chair at `International Conference in Machine Learning (ICML), Vienna, Austria, 2024`
- Session chair at `International Conference in Machine Learning (ICML), Honolulu, Hawai'i, 2023`
- Session chair at `Neural Information Processing Systems (NeurIPS), New Orleans, Louisiana, 2022`

Mentees

Graduate:

- Zongyi Li (Caltech), Manish Kumar Bera (ETH), Sahin Lale (Caltech), Jeremy Bernstein (Caltech)

Undergraduate:

- Chase Blagden (Caltech), Damon Lin (Caltech), Videh Raj Nema (IIT Madras), Guneet S Dhillon (UT Austin, Amazon), Weitang Liu (UC, Davis), Brandon Yang (Stanford, Google Brain), Jiawei Zhao (Nanjing University, Caltech), Hongjie Chen (Shanghai Jiao Tong University, Caltech), Zongyi Li (Washington University in St. Louis, Caltech), Vivek Bharadwaj (Caltech), Akshay R. Vegesna (Caltech), Ravi Tej Akella (IIT Roorkee), Manish Prajapat (ETH), Albert Zhai (Caltech), Abhijeet Vyas (IIT), Jihwan Bae (Gwangju Institute of Science and Technology), Sirui Li (MIT), Saturnin J. Pugnet (Caltech)