

BRYAN WILDER

bwilder@cmu.edu

ACADEMIC APPOINTMENTS

Carnegie Mellon University Assistant Professor, Machine Learning Department	<i>2022 - Present</i>
Carnegie Mellon University Postdoctoral Associate, Machine Learning Department Supported by the Schmidt Science Fellows program	<i>2021 - 2022</i>
Harvard T. H. Chan School of Public Health Research Fellow, Center for Communicable Disease Dynamics	<i>2021 - 2022</i>

VISITING APPOINTMENTS

Toulouse School of Economics	<i>Spring 2025</i>
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EDUCATION

Harvard University Ph.D., Computer Science Adviser: Milind Tambe Defended June 2021	<i>2019 - 2021</i>
University of Southern California PhD Candidate, Department of Computer Science Adviser: Milind Tambe	<i>2015 - 2019</i>
University of Central Florida B.S. Computer Science (<i>summa cum laude</i>) with Minor in Mathematics Thesis: Sparsification of Social Networks Using Random Walks. Advised by Gita Sukthankar. Outstanding Thesis Award for Science and Engineering.	<i>2011 - 2015</i>

EXPERIENCE

Microsoft Research, Redmond Research Intern Mentors: Ece Kamar and Eric Horvitz	<i>Summer 2019</i>
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SELECTED AWARDS AND FELLOWSHIPS

- 2025 Exemplary Paper Award, ACM Conference on Economics and Computation
- 2024 Honorable Mention, AAAI/ACM SIGAI Dissertation Award
- 2022 Schmidt AI2050 Early Career Fellowship
- 2021 IFAAMAS Victor Lesser Distinguished Dissertation Award
- 2021 Schmidt Science Fellowship
- 2021 University of Chicago Spotlight Rising Star in Data Science (one of 10)
- 2021 Siebel Scholar Award
- 2020 MD4SG Best Student Paper Award

2020 Nominated for AAMAS Best Paper Award
2019 Honorable mention for ICML Best Paper Award
2019 Best Paper Award, Workshop on Optimization and Learning in Multi-Agent Systems @ AAMAS
2019 Best Research Assistant, USC Viterbi School of Engineering
2018 Second place in INFORMS Doing Good with Good OR Competition
2018 Nominated for AAMAS Best Student Paper Award
2017 AAAI Best Video Award
2017 Nominated for AAMAS Best Paper Award
2016 National Science Foundation Graduate Research Fellowship
2015 University of Southern California Annenberg Fellowship
2011 University of Central Florida Provost Scholar

JOURNAL PUBLICATIONS

- J17. Khurram Yamin, Vibhhu Sharma, Edward Kennedy, **Bryan Wilder**. Accounting for Missing Covariates in Heterogeneous Treatment Estimation. *Transactions on Machine Learning Research*. 2026.
- J16. Yewon Byun, Sanket Vaibhav Mehta, Saurabh Garg, Michael Oberst, Emma Strubell, **Bryan Wilder**, Zachary Lipton. Expert Routing with Synthetic Data for Domain Incremental Learning. *Transactions on Machine Learning Research*. 2025. Journal-to-Conference Certification.
- J15. Ruiqi Lyu, Roni Rosenfeld, **Bryan Wilder**. Federated Epidemic Surveillance. *PLOS Computational Biology*. 2025.
- J14. Jingjing Tang, Aaron Rumack, **Bryan Wilder**, Roni Rosenfeld. Real-time forecasting of data revisions in epidemic surveillance streams. *PLOS Computational Biology*. 2025.
- J13. Xueda Shen, Aaron Rumack, **Bryan Wilder**, Ryan J. Tibshirani. Nowcasting Reported COVID-19 Hospitalizations Using De-Identified, Aggregated Medical Insurance Claims Data. *PLOS Computational Biology*. 2025.
- J12. Tamar Krishnamurti, Samantha Rodriguez, **Bryan Wilder**, Priya Gopalan, Hyagriv N. Simhan. Predicting first time depression onset in pregnancy: applying machine learning methods to patient-reported data. *Archives of Women's Mental Health*. 2024.
- J11. **Bryan Wilder***, Clara Pons-Duran*, Frederick G. B. Goddard, Bezawit Mesfin Hunegnaw, Sebastien Haneuse, Delayehu Bekele, Grace J. Chan. Development of Prediction Models for Antenatal Care Attendance in Amhara Region, Ethiopia. *JAMA Network Open*. 2023
- J10. Clara Pons-Duran*, **Bryan Wilder***, Bezawit Mesfin Hunegnaw, Sebastien Haneuse, Frederick G. B. Goddard, Delayehu Bekele, Grace J. Chan. Development of risk prediction models for preterm delivery in a rural setting in Ethiopia. *Journal of Global Health*. 2023.
- J9. Eric Rice, **Bryan Wilder**, Laura Onasch-Vera, Graham DiGuseppi, Robin Petering, Chyna Hill, Amulya Yadav, Sung-Jae Lee, Milind Tambe. A Peer-Led, Artificial Intelligence-Augmented Social Network Intervention to Prevent HIV Among Youth Experiencing Homelessness. *Journal of Acquired Immune Deficiency Syndromes*. 2021.
- J8. **Bryan Wilder**, Marie Charpignon, Jackson A. Killian, Han-Ching Ou, Aditya Mate, Shahin Jabbari, Andrew Perrault, Angel Desai, Milind Tambe, and Maimuna S. Majumder. Modeling

- between-population variation in COVID-19 dynamics in Hubei, Lombardy, and New York City. *Proceedings of the National Academy of Sciences* 117.41 (2020): 25904-25910.
- J7. Daniel B. Larremore, **Bryan Wilder**, Evan Lester, Soraya Shehata, James M. Burke, James A. Hay, Milind Tambe, Michael J. Mina, Roy Parker. Test sensitivity is secondary to frequency and turnaround time for COVID-19 surveillance. *Science Advances* (2020) : eabd5393
- J6. **Bryan Wilder**, Sze-chuan Suen, Milind Tambe. Allocating outreach resources for disease control in a dynamic population with information spread. *IISE Transactions* (2020): 1-14.
- J5. Eric Rice, Robin Petering, Amanda Yoshioka-Maxwell, Jaih Craddock, Darlene Woo, Nicole Wilson, Laura Onasch-Vera, **Bryan Wilder**, Amulya Yadav, Milind Tambe. Piloting the Use of Artificial Intelligence to Enhance HIV Prevention Interventions for Youth Experiencing Homelessness. *Journal of the Society for Social Work and Research* 9.4 (2018): 551-573.
- J4. Anne Kandler, **Bryan Wilder**, Laura Fortunato. Inferring individual-level processes from population-level patterns in cultural evolution. *Royal Society Open Science* 4.9 (2017): 170949.
- J3. **Bryan Wilder** and Anne Kandler. Inference of Cultural Transmission Modes Based on Incomplete Information. *Human Biology* 87.3 (2015): 193-204.
- J2. **Bryan Wilder** and Kenneth O. Stanley. Reconciling Explanations for the Evolution of Evolvability. *Adaptive Behavior* 23.3 (2015): 171-179.
- J1. **Bryan Wilder** and Kenneth O. Stanley. Altruists Proliferate Even When at a Selective Disadvantage Within their Own Niche. *PLOS ONE* 10.6 (2015): e0128654.

RIGOROUSLY REVIEWED CONFERENCE PUBLICATIONS

- C56. Yewon Byun, **Bryan Wilder**. Robust Human-AI Complementarity under Uncertainty. *International Conference on Machine Learning (ICML)*. 2026.
- C55. Ruiqi Lyu, Alistair Turcan, **Bryan Wilder**. Explaining Concept Shift with Interpretable Feature Attribution. *International Conference on Machine Learning (ICML)*. 2026.
- C54. Khurram Yamin, Shantanu Gupta, Gaurav R. Ghosal, Zachary C. Lipton, **Bryan Wilder**. LLMs Struggle to Balance Reasoning and World Knowledge in Causal Narrative Understanding. *International Conference on Learning Representations (ICLR)*. 2026.
- C53. Jianyu Xu, Vidhi Jain, **Bryan Wilder**, Aarti Singh. Online Decision Making with Generative Action Sets. *International Conference on Learning Representations (ICLR)*. 2026.
- C52. Kanad Pardeshi, **Bryan Wilder**, Aarti Singh. OEUVRE: OnlinE Unbiased Variance-Reduced loss Estimation. *International Conference on Artificial Intelligence and Statistics (AISTATS)*. 2026. **Spotlight**.
- C51. Ananya Joshi, Nolan Gormley, Richa Gadgil, Catalina Vajiac, Tina Townes, Ronald Rosenfeld, **Bryan Wilder**. Reducing Alert Fatigue Through AI Ranking: A Deployed Public Health Data Monitoring System. *Conference on Innovative Applications of Artificial Intelligence (IAAI)*. 2026.
- C50. Yewon Byun, Shantanu Gupta, Zachary C. Lipton, Rachel Leah Childers, **Bryan Wilder**. Valid Inference with Imperfect Synthetic Data. *Advances in Neural Information Processing Systems (NeurIPS)*. 2025.
- C49. Maitreyi Swaroop, Tamar Krishnamurti, **Bryan Wilder**. Distributionally Robust Feature Selection. *Advances in Neural Information Processing Systems (NeurIPS)*. 2025.
- C48. **Bryan Wilder**, Angela Zhou. Fostering the Ecosystem of AI for Social Impact Requires Expanding and Strengthening Evaluation Standards. *Advances in Neural Information Processing Systems (NeurIPS)*. 2025.

- C47. Kevin Ren, Santiago Cortes-Gomez, Carlos Miguel Patio, Ananya Joshi, Ruiqi Lyu, Jingjing Tang, Alistair Turcan, Khurram Yamin, Steven Wu, **Bryan Wilder**. Predicting Language Models' Success at Zero-Shot Probabilistic Prediction. *Findings of Empirical Methods in Natural Language Processing (EMNLP)*. 2025.
- C46. Khurram Yamin, Edward Kennedy, **Bryan Wilder**. Dependent Randomized Rounding for Budget Constrained Experimental Design. *Conference on Uncertainty in Artificial Intelligence (UAI)*. 2025.
- C45. Justin Whitehouse, Christopher Jung, Vasilis Syrgkanis, **Bryan Wilder**, Zhiwei Steven Wu. Orthogonal Causal Calibration. *Conference on Learning Theory (COLT)*. 2025.
- C44. Santiago Cortes-Gomez, Naveen Raman, Aarti Singh, and **Bryan Wilder**. Data-driven Design of Randomized Control Trials with Guaranteed Treatment Effects.. *International Conference on Machine Learning (ICML)*. 2025.
- C43. Vibhu Sharma, **Bryan Wilder**. Comparing Targeting Strategies for Maximizing Social Welfare with Limited Resources. *International Conference on Learning Representations (ICLR)*. 2025.
- C42. Santiago Cortes-Gomez, Carlos Patino, Yewon Byun, Steven Wu, Eric Horvitz, **Bryan Wilder**. Utility-Directed Conformal Prediction: A Decision-Aware Framework for Actionable Uncertainty Quantification. *International Conference on Learning Representations (ICLR)*. 2025.
- C41. Lily Xu, **Bryan Wilder**, Elias Boutros Khalil, Milind Tambe. Reinforcement learning with combinatorial actions for coupled restless bandits. *International Conference on Learning Representations (ICLR)*. 2025.
- C40. **Bryan Wilder**, Pim Welle. Learning Treatment Effects While Treating Those in Need. *ACM Conference on Economics and Computation (EC)*. 2025. Previous nonarchival version at 2024 ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO).
- C39. Santiago Cortes-Gomez, Mateo Dulce, Carlos Patino, **Bryan Wilder**. Statistical Inference Under Constrained Selection Bias. *International Conference on Machine Learning (ICML)*. 2024
- C38. Kevin Ren, Yewon Byun, **Bryan Wilder**. Decision-Focused Evaluation of Worst-Case Distribution Shift. *Conference on Uncertainty in Artificial Intelligence (UAI)*. 2024.
- C37. Yewon Byun, Dylan Sam, Michael Oberst, Zachary Lipton, **Bryan Wilder**. Robustly Quantifying Inequity in Resource Allocation. *International Conference on Artificial Intelligence and Statistics (AISTATS)*. 2024.
- C36. Ananya Joshi, Tina Townes, Nolan Gormley, Luke Neurieter, Roni Rosenfeld, **Bryan Wilder**. Outlier Ranking For Large-Scale Public Health Data. *AAAI Conference on Artificial Intelligence (AAAI)*. 2024.
- C35. Sanket Shah, Andrew Perrault, **Bryan Wilder**, Milind Tambe. Leaving the Nest: Going Beyond Local Loss Functions for Predict-Then-Optimize. *AAAI Conference on Artificial Intelligence (AAAI)*. 2024.
- C34. Ben Chugg, Santiago Cortes-Gomez, **Bryan Wilder**, Aaditya Ramdas. Auditing Fairness by Betting. *Advances in Neural and Information Processing Systems (NeurIPS)*. 2023.
- C33. Ananya Joshi, Roni Rosenfeld, **Bryan Wilder**. Computationally Assisted Quality Control for Public Health Data Streams. *International Joint Conference on Artificial Intelligence (IJCAI)*. 2023.
- C32. Haipeng Chen, **Bryan Wilder**, Wei Qiu, Bo An, Eric Rice, Milind Tambe. Complex Contagion Influence Maximization: A Reinforcement Learning Approach. *International Joint Conference on Artificial Intelligence (IJCAI)*. 2023.

- C31. Aditya Mate, **Bryan Wilder**, Aparna Taneja, Milind Tambe. Improved Policy Evaluation for Randomized Trials of Algorithmic Resource Allocation. *International Conference on Machine Learning (ICML)*. 2023.
- C30. Michael Poli, Stefano Massaroli, Stefano Ermon, **Bryan Wilder**, Eric Horvitz. Ideal Abstractions for Decision-Focused Learning. *International Conference on Artificial Intelligence and Statistics (AISTATS)*. 2023.
- C29. Sanket Shah, Kai Wang, **Bryan Wilder**, Andrew Perrault, Milind Tambe. Decision-Focused Learning without Decision-Making: Learning Locally Optimized Decision Losses. *Advances in Neural and Information Processing Systems (NeurIPS)*. 2022.
- C28. **Bryan Wilder**, Michael J. Mina, Milind Tambe. Tracking disease outbreaks from sparse data with Bayesian inference. *AAAI Conference on Artificial Intelligence (AAAI)*. 2021.
- C27. **Bryan Wilder**, Laura Onasch-Vera, Graham Diguseppi, Robin Petering Chyna Hill, Amulya Yadav, Eric Rice, Milind Tambe. Clinical trial of an AI-augmented intervention for HIV prevention in youth experiencing homelessness. *AAAI Conference on Artificial Intelligence (AAAI)*. 2021.
- C26. Kai Wang, **Bryan Wilder**, Andrew Perrault, Milind Tambe. Automatically Learning Compact Quality-aware Surrogates for Optimization Problems. *Advances in Neural and Information Processing Systems (NeurIPS)*. 2020. **Selected for spotlight presentation.**
- C25. **Bryan Wilder**, Eric Horvitz, Ece Kamar. Learning to Complement Humans. *International Joint Conference on Artificial Intelligence (IJCAI)*. 2020.
- C24. Harshavardhan Kamarthi, Priyesh Vijayan, **Bryan Wilder**, Balaraman Ravindran, Milind Tambe. Influence maximization in unknown social networks: Learning policies for effective graph sampling. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2020. **Nominated for best paper.**
- C23. Aaron Ferber, **Bryan Wilder**, Bistra Dilkina, Milind Tambe. MIPaaL: Mixed Integer Program as a Layer. *AAAI Conference on Artificial Intelligence (AAAI)*. 2020.
- C22. Andrew Perrault, **Bryan Wilder**, Eric Ewing, Aditya Mate, Bistra Dilkina, Milind Tambe. Decision-Focused Learning of Adversary Behavior in Security Games. *AAAI Conference on Artificial Intelligence (AAAI)*. 2020.
- C21. **Bryan Wilder**, Eric Ewing, Bistra Dilkina, Milind Tambe. End to End Learning and Optimization on Graphs. *Advances in Neural and Information Processing Systems (NeurIPS)*. 2019.
- C20. Aida Rahmattalabi, Phebe Vayanos, Anthony Fulginiti, Eric Rice, **Bryan Wilder**, Amulya Yadav, Milind Tambe. Exploring Algorithmic Fairness in Robust Graph Covering Problems. *Advances in Neural and Information Processing Systems (NeurIPS)*. 2019.
- C19. Po-Wei Wang, Priya L. Donti, **Bryan Wilder**, Zico Kolter. SATNet: Bridging deep learning and logical reasoning using a differentiable satisfiability solver. *International Conference on Machine Learning (ICML)*. 2019. **Honorable mention for best paper.**
- C18. Alan Tsang*, **Bryan Wilder***, Eric Rice, Milind Tambe, Yair Zick. Group-Fairness in Influence Maximization. *International Joint Conference on Artificial Intelligence (IJCAI)*. 2019.
*Equal contribution
- C17. Jackson A. Killian, **Bryan Wilder**, Amit Sharma, Vinod Choudhary, Bistra Dilkina, Milind Tambe. Learning to Prescribe Interventions for Tuberculosis Patients using Digital Adherence Data. *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*. 2019.
- C16. Matthew Staib* **Bryan Wilder***, Stefanie Jegelka. Distributionally Robust Submodular Maximization. *International Conference on Artificial Intelligence and Statistics (AISTATS)*. 2019.

*Equal contribution

- C15. **Bryan Wilder**, Bistra Dilkina, Milind Tambe. Melding the Data-Decisions Pipeline: Decision-Focused Learning for Combinatorial Optimization. *AAAI Conference on Artificial Intelligence (AAAI)*. 2019.
- C14. **Bryan Wilder**, Yevgeniy Vorobeychik. Defending Elections Against Malicious Spread of Misinformation. *AAAI Conference on Artificial Intelligence (AAAI)*. 2019.
- C13. Mohammad Javad Azizi, Phebe Vayanos, **Bryan Wilder**, Eric Rice, Milind Tambe. Designing Fair, Efficient, and Interpretable Policies for Prioritizing Homeless Youth for Housing Resources. *International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR)*. 2018. **Invited to Constraints journal fast track for outstanding papers.**
- C12. **Bryan Wilder**, Laura Onasch-Vera, Juliana Hudson, Jose Luna, Nicole Wilson, Robin Petering, Darlene Woo, Milind Tambe, Eric Rice. End-to-End Influence Maximization in the Field. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2018. **Nominated for best student paper.**
- C11. **Bryan Wilder**, Han Ching Ou, Kayla de la Haye, Milind Tambe. Optimizing network structure for preventative health. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2018.
- C10. **Bryan Wilder**, Yevgeniy Vorobeychik. Controlling Elections through Social Influence. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2018.
- C9. Lily Hu, **Bryan Wilder**, Amulya Yadav, Eric Rice, and Milind Tambe. Activating the "Breakfast Club": Modeling Influence Spread in Natural-World Social Networks. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2018.
- C8. **Bryan Wilder**, Sze-Chuan Suen, and Milind Tambe. Preventing infectious disease in dynamic populations under uncertainty. *AAAI Conference on Artificial Intelligence (AAAI)*. 2018.
- C7. **Bryan Wilder**. Equilibrium computation and robust optimization in zero sum games with submodular structure. *AAAI Conference on Artificial Intelligence (AAAI)*. 2018.
- C6. **Bryan Wilder**. Risk-sensitive submodular optimization. *AAAI Conference on Artificial Intelligence (AAAI)*. 2018.
- C5. **Bryan Wilder**, Nicole Immorlica, Eric Rice, and Milind Tambe. Maximizing influence in an unknown social network. *AAAI Conference on Artificial Intelligence (AAAI)*. 2018.
- C4. **Bryan Wilder**, Amulya Yadav, Nicole Immorlica, Eric Rice and Milind Tambe. Uncharted but not Uninfluenced: Influence Maximization with an Uncertain Network. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2017.
- C3. Amulya Yadav, **Bryan Wilder**, Robin Petering, Eric Rice and Milind Tambe. Influence Maximization in the Field: The Arduous Journey from Emerging to Deployed Application. *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2017. **Nominated for best paper award.**
- C2. Shahrzad Gholami, **Bryan Wilder**, Matthew Brown, Arunesh Sinha, Dana Thomas, Nicole Sintov, Milind Tambe. Divide to Defend: Collusive Security Games. *Conference on Decision and Game Theory for Security (GameSec)*. 2016.
- C1. **Bryan Wilder** and Gita Sukthankar. Sparsification of Social Networks Using Random Walks. *International Conference on Social Computation (SocialCom)*. 2015

SELECTED COVERAGE IN POPULAR PRESS

Yahoo News. Rapid testing could 'drive the epidemic toward extinction'. November 24, 2020. Features interview with Dr. Fauci discussing our Science Advances paper.

The Atlantic. The Plan That Could Give Us Our Lives Back. August 14, 2020.

New York Times. It's Kitchen Sink Time: Fast, Less-Accurate Coronavirus Tests May Be Good Enough. August 6, 2020.

Time Magazine. America Needs to Radically Rethink Our COVID-19 Testing Approach. July 29, 2020.

Washington Post. Long delays in getting test results hobble coronavirus response. July 12, 2020.

The Hill. Test frequency more important than sensitivity for coronavirus surveillance: study. July 7, 2020.

Nature News. Test frequency matters more than test sensitivity for stopping outbreaks (COVID research updates). June 26, 2020.

VentureBeat. Microsoft chief scientist: Humans and AI work better together than alone. May 17, 2020.

INVITED TALKS

- Ludwig Maximilian University of Munich AI Keynote Series. 2026. "Is Synthetic Data Useful for Science?"
- Simons Institute Workshop on Bridging Prediction and Intervention Problems in Social Systems. 2026. "Evaluating Probabilistic Decision Making by LLMs".
- University of Michigan, Ann Arbor, AI Seminar. 2025. "Predictive vs causal targeting of social interventions".
- Max Planck Institute for Intelligent Systems Tübingen, 2025. "Predictive vs causal targeting of social interventions".
- Toulouse School of Economics Digital Economics Seminar, 2025. "Machine learning to complement human decision making".
- BIRS Workshop on Bridging Prediction and Intervention Problems in Social Systems, 2024. "Learning treatment effects while treating those in need".
- Nanyang Technological University, 2024. "Machine learning for public health decision making"
- AAAI Workshop on AI in Finance for Social Impact, 2024. "Machine Learning for Public Health Decision Making"
- 2024 TrustML Workshop, University of British Columbia. "Machine Learning for Public Health Decision Making".
- Université Toulouse Capitole IRIT Seminar, 2024. "Machine Learning for Public Health Decision Making".
- International Conference on Stochastic Programming 2023, Invited Tutorial. "Integrating machine learning and discrete optimization"
- International Workshop on Epidemiology meets Data Mining and Knowledge Discovery. In conjunction with the ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2022. "Machine Learning and Social Networks for Infectious Diseases".
- 2022 Conference on Constraint Programming, Artificial Intelligence, and Operations Research. Invited talk in Master Class on Bridging the Gap between Machine Learning and Optimization.

“Decision-focused Learning: Data-driven Decisions by Melding Optimization and Machine Learning”.

- Singapore Center for Frontier AI Research Rising Star Lecture Series, 2022. “AI for Public Health”
- First International Workshop on Combining Learning and Reasoning: Programming Languages, Formalisms, and Representations. In conjunction with the 36th AAAI conference on Artificial Intelligence (AAAI-22). “Bridging discrete optimization and machine learning”.
- Google Research India, 2021. “Melding optimization and machine learning for social impact”.
- Pennsylvania State University, AI for Social Impact Seminar, 2021. “AI for Population Health: Melding Data and Algorithms on Networks”

VIDEOS

Amulya Yadav, Eric Rice, Robin Petering, Jaih Craddock, **Bryan Wilder**, Milind Tambe. HEALER: Using AI to Raise HIV Awareness among Homeless Youth. *AAAI Conference on Artificial Intelligence (AAAI)*. 2017. **Best video award**.

PROFESSIONAL SERVICE

Executive Committee: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO) 2023-present.

Program Co-Chair: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO) 2022.

Organizing Committee: 2023 AAMAS Workshop on Autonomous Agents for Social Good, 2021 ICLR Workshop on AI for Public Health; 2020, 2019 IJCAI Workshop on AI for Social Good; AAAI 2017 Spring Symposium on AI for Social Good (AISOC).

Lead Organizer: Mechanism Design for Social Good (MD4SG) Working Groups program, Fall 2019-2021.

Tutorial presenter: AAAI 2020 & AAMAS 2019 (“Optimization & Learning Approaches to Resource Allocation for Social Good”), Computational Sustainability Doctoral Consortium 2019 (“Submodular Optimization”), IJCAI 2018 (“Algorithmic Social Intervention”), AAMAS 2018 (“AI for Social Good”).

Area chair: ACM FAccT (2023, 2024), ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAAMO) 2021.

Senior Program Committee: IJCAI (2023)

Program Committee: AAAI (2019, 2020, 2021, 2022, 2023), NeurIPS (2018, 2020, 2021, 2024), ICLR (2021), SDM (2021), IJCAI (2021), AAMAS (2023)

Reviewer: Nature Computational Science, Proceedings of the National Academy of Sciences, American Journal of Epidemiology, Journal of Machine Learning Research, Journal of Artificial Intelligence Research, Artificial Intelligence, IEEE Transactions on Signal Processing on Networks, Philosophical Transactions of the Royal Society B, ACM Transactions on Data Science, IEEE Transactions on Big Data, Autonomous Agents and Multi-Agent Systems, PLOS ONE, Journal of Heuristics, Nature Communications Medicine, IEEE Transactions on Robotics, Management Science, Statistics in Medicine, PLOS Computational Biology.

ADVISING

PhD advising

Ye Won (Emily) Byun. PhD Student, Machine Learning Department, CMU.

Santiago Cortes Gomez. PhD Student, Machine Learning Department, CMU.

Ruiqi Liu. PhD Student, Computational Biology Department, CMU.

Jingjing Tang. PhD student, Computational Biology Department, CMU.

Khurram Yamin. PhD Student, Machine Learning Department, CMU.

Maitreyi Swaroop. PhD Student, Machine Learning Department, CMU.

Kanad Pardeshi. PhD Student, Machine Learning Department, CMU.

Ananya Joshi. PhD Student, Computer Science Department, CMU. Graduated: 2025.

Master's student advising

Shikha Bhat (MSML, CMU). 2025-

Jaskaran Walia (MSML, CMU). 2025-

Vibhuu Sharma (MSML, CMU). 2023-2023.

Undergraduate mentoring

Kevin Ren (B.S. student, CMU). 2022-2025.

Jason Huang (A.B. student, Harvard). 2020-2021.

April Chen (A.B. student, Harvard). 2020-2021.

Kavya Kopparapu (A.B. student, Harvard). 2019-2020.

Hyeon-Jae Seo, Cameron Cohen, Isaac Sebenius (A.B. students, Harvard). Fall 2019.

TEACHING EXPERIENCE

Instructor Carnegie Mellon University.
10-606: Mathematics for Machine Learning
10-607: Computation for Machine Learning

Fall 2023, 2024, 2025

Instructor Carnegie Mellon University.
10-748: Machine Learning for Epidemiology.

Fall 2025

Instructor Carnegie Mellon University.
10-718: Machine Learning in Practice.

Spring 2023, Fall 2024

Graduate Teaching Assistant University of Southern California.
CSCI 170: Discrete Methods in Computer Science.

Spring 2018

Graduate Teaching Assistant, University of Southern California.
CSCI 104: Object Oriented Programming and Data Structures

Summer 2017