Aishwarya Mandyam

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Stanford University
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Stanford, CA 94305

Education

2022- **Ph.D., Computer Science**
Stanford University, Stanford, CA
Advisors: Barbara E. Engelhardt, Emma Brunskill

2020-2022 **Ph.D., Computer Science**
Princeton University, Princeton, NJ
Advisor: Barbara E. Engelhardt (left program)

2019-2020 **MS, Computer Science**
University of Washington, Seattle, WA
Advisors: Luis Ceze, Jeff Nivala, Kevin Jamieson

2015-2019 **B.S., Computer Science**
B.A., Philosophy
University of Washington, Seattle, WA
Advisors: Luis Ceze, Jeff Nivala

Publications

(*) symbol denotes equal contribution as co-first or co-senior author.

Preprints & Working Papers

[S1] **Aishwarya Mandyam***, Shlok Natarajan*, Roxana Daneshjoy, "Medical Evaluation Benchmarks for LLMs Should be Audience and Task Specific".

[S2] **Aishwarya Mandyam***, Jason Meng*, Ge Gao, Jiankai Sun, Mac Schwager, Barbara E. Engelhardt, Emma Brunskill. "PERRY: Policy Evaluation with Confidence Intervals using Augmented Data".

[S3] **Aishwarya Mandyam**, Shengpu Tang, Jiayu Yao, Jenna Wiens, Barbara E. Engelhardt. "CANDOR: Counterfactual ANnotated DOubly Robust Off-Policy Evaluation".

Journal articles

[J1] **Aishwarya Mandyam**, Didong Li, Diana Cai, Andrew Jones, Barbara E. Engelhardt. "Kernel Density Bayesian Inverse Reinforcement Learning". In: *Transactions of Machine Learning Research*. [PDF]

[J2] Niranjani Prasad*, **Aishwarya Mandyam***, Corey Chivers, Michael Draugelis, C. William Hanson III, Barbara E. Engelhardt. "Guiding Efficient, Effective, and Patient-Oriented Electrolyte Replacement in Critical Care: An Artificial Intelligence Reinforcement Learning Approach". In: *Journal of Personalized Medicine*. [PDF]

[J3] Katie Doroschak, Karen Zhang, Melissa Queen, **Aishwarya Mandyam**, Karin Strauss, Jeff Nivala, Luis Ceze. "Porcupine: Rapid and robust tagging of physical objects using nanopore-orthogonal DNA strands". In: *Nature Communications (2020)*. [PDF]

Conference Proceedings

[C1] **Aishwarya Mandyam***, Matthew Joerke*, Barbara Engelhardt, Emma Brunskill. 'Adaptive Interventions with User-Defined Goals for Health Behavior Change". In: *Conference on Health Inference and Learning (CHIL) 2024*. [PDF]

[C2] **Aishwarya Mandyam**, Andrew Jones, Jiayu Yao, Krzyzstof Laudanski, Barbara E. Engelhardt. 'Compositional Q-learning for electrolyte repletion with imbalanced patient subpopulations". In: *3rd Machine Learning for Health Symposium (2023)*. [PDF]

[C3] **Aishwarya Mandyam**, Jeff Soules, Elizabeth Yoo, Krzyzstof Laudanski, Barbara E. Engelhardt. 'COP-E-CAT: Cleaning and Organization Pipeline for EHR Computational and Analytic Tasks". In: *ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (2021)*. [PDF]

Refereed Workshop Papers

[W1] **Aishwarya Mandyam**, Siena Dumas Ang, Barbara E. Engelhardt. "Estimating Influential Samples in the Fragile Families Challenge". In: *NeurIPS Women in Machine Learning Workshop (2020)*. [PDF]

[W2] **Aishwarya Mandyam**, Yuhao Wan, Luis Ceze, Jeff Nivala, Kevin Jamieson. "Molecular Matchmaker: selecting peptide-aptamer binding pairs using machine learning". In: *Machine Learning in Computational Biology (MLCB) (2020)*. [PDF]

Awards & Fellowships

2024 **Stanford Data Science Scholars Fellowship**
Awarded to a select group of current Stanford PhD students who contribute to data-intensive science ($60,000).

2023 **Best Proceedings Paper Runner-Up, Machine Learning for Healthcare Symposium**

2022 **Stanford School of Engineering Fellowship**
Awarded a 1-year fellowship to cover rotations ($60,000).

2020 **Princeton First Year Fellowship**
Awarded a 1-year fellowship to cover rotations ($60,000).

2019 **ACM Student Research Competition Award**
2nd place in the undergraduate research category.

2019 **Class of 2019 Allen School Undergraduate Service Award**
The Allen School service award recognizes 2 students in every graduating class for outstanding service contributions to the Allen School.

2018 **Husky 100**
The Husky 100 recognizes 100 out of 40,000 UW undergraduate and graduate students who are making the most of their time at the UW.

Talks & Presentations

2025 Conference on Health, Inference, and Learning (CHIL), Doctoral Symposium Spotlight Talk
2025 International Conference on Statistics and Data Science, Invited Talk]] Stanford University, CS 31N Science of Counterfactuals Guest Lecture
2024 New York University, Rajesh Ranganath's Group Meeting
2024 New York Academy of Science's 15th Machine Learning Symposium
2024 Michigan AI Symposium, Invited Talk
2024 Harvard University DtAK Lab Group Meeting
2024 University of Michigan MLD3 Group Meeting
2020 Machine Learning in Computational Biology (MLCB), Oral Presentation

Industry Experience

2024 Amazon, *Applied Science Intern*, New York City
Hosted by Dean Fotster and Omer Gottesman. Defining surrogate models to evaluate large language model-based math tutors.

2021 Gladstone Institutes, *Research Associate*, San Francisco

2019 Allen Institute of Artificial Intelligence, *Intern*, Seattle
Implemented and analyzed custom computer vision models to detect veins and arteries in ultrasound videos.

2018 Sage Bionetworks, *Intern*, Seattle
Designed and developed an Android app feature to measure cardiorespiratory fitness to be used in a National Institute of Health study with 1 million users.

2018 Microsoft, *Intern*, Seattle
Designed and implemented a Convolutional Neural Network to detect highlight clips from game streams to enable gamers to share the best parts of their gameplay sessions, increasing the visibility of the Xbox gaming environment.

2017 Microsoft, *Intern*, Seattle
Built an end-to-end prototype that allows users to control the Xbox using Amazon Alexa and Cortana Assistant. Prototype was expanded to create a shipped feature and covered in The Verge, TechCrunch, IGN, Geekwire.

2016 Microsoft, *Explorer Intern*, Seattle

2015 Expedia, *Software Developer Apprentice*, Seattle

Teaching & Mentoring

Mentees

William Denton (Stanford University)
Kalyani Limaye (Stanford University)

TA Experience

2025 Computer Science and Engineering 234, *Stanford University.* Introduction to Reinforcement Learning.
2019 Computer Science and Engineering 421, *University of Washington.* Undergraduate-level Artificial Intelligence course.

Professional Service

Journal & Conference Reviewing

International Conference on Machine Learning (ICML), (2025)
Advances in Neural Information Processing Systems (NeurIPS), (2024, 2025)
Artificial Intelligence and Statistics (AISTATS), 2024
Machine Learning for Healthcare Symposium (ML4H), 2024
Reinforcement Learning Conference (RLC), (2024, 2025)
Conference on Health Informatics and Learning (CHIL), (2022, 2025)

Other Service

2024 Machine Learning for Healthcare Symposium (ML4H), *Organizer*
2024 Stanford-Berkeley Women's Research Meetup for Women in CS and EE, *Organizer*