

Meera Krishnamoorthy
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Education

2019 - 2025 (expected)	University of Michigan Ph.D. in Computer Science and Engineering Advisor: Jenna Wiens	GPA: 3.94
2015 - 2019	California Institute of Technology B.S. in Electrical Engineering Minor in Computer Science	GPA: 3.70

Awards and Fellowships

2019	National Physical Science Consortium Fellowship
2018	Arthur E. Lamel Memorial Summer Undergraduate Research Fellowship
2018	SanPietro Travel Prize Recipient
2015	National Merit Scholar

Research and Work Experience

2019 - Present	Graduate Student Research Assistant , <i>University of Michigan</i> Advised by Professor Jenna Wiens. Work at the intersection of machine learning and healthcare.
Summer 2023	Research Analyst Intern , <i>Duke Institute of Health Innovation (DIHI)</i> Developed multiple models to predict post-operative outcomes from invasive surgical procedures.
Summer 2018	Summer Undergraduate Research Fellow , <i>California Institute of Technology</i> Mentored by Professor Yisong Yue. Explored using domain knowledge from control theory to develop a safe and accurate machine learning-based controller.
Summer 2017	Software Engineering Intern , <i>Rocketship.vc</i> Created method to scrape and store information about startup investors and founders. Performed social network analysis to find trends among networks of successful venture personnel.
Summer 2016	Summer Undergraduate Research Fellow , <i>NASA Jet Propulsion Laboratory</i> Mentored by Dr. Glenn Orton. Performed mathematical modeling and spectral analysis to identify nature of astronomical impact on Jupiter.
2013 - 2015	Research Intern , <i>Stanford University</i> Mentored by Professor Shripad Tuljapurkar. Created mathematical models to simulate habitat degradation.

Selected Publications

Meera Krishnamoorthy, Jenna Wiens. “Multiple Instance Learning with Absolute Position Information, ” Conference Paper, Conference on Health, Inference, and Learning (CHIL), June 2024.

Meera Krishnamoorthy, Michael W. Sjoding, Jenna Wiens. “Off-label use of artificial intelligence models in healthcare, ” Comment, Nature Medicine, March 2024.

Meera Krishnamoorthy, Piyush Ranjan, John R. Erb-Downward, Robert P. Dickson, Jenna Wiens. “AMAISE: a machine learning approach to index-free sequence enrichment,” Journal Paper, Nature Communications Biology 5, Article Number 568, June 2022.

Selected Presentations

Meera Krishnamoorthy, Jenna Wiens, “Cross-Validation for Longitudinal Datasets with Time-Varying Spurious Correlations,” Poster Presentation, 3rd Annual E-HAIL Symposium, Sept. 2024.

Meera Krishnamoorthy, Jenna Wiens, “Improving the Memory Efficiency and Speed of Clinical Decision Support Tools,” Oral Presentation, Greenhills Advanced Research Program: Summer Seminar Schedule Symposium, June 2024.

Meera Krishnamoorthy, Piyush Ranjan, John Erb-Downward, Robert Dickson, Jenna Wiens, “AMAISE: a machine learning approach to index-free sequence enrichment,” Oral Presentation, University of Michigan’s DCMB Tools & Technology Seminar, Feb. 2023.

Meera Krishnamoorthy, Piyush Ranjan, John Erb-Downward, Robert Dickson, Jenna Wiens, “AMAISE: a machine learning approach to index-free sequence enrichment,” Poster Presentation, 10th Annual Kahn Symposium, Nov. 2022.

🏆Honorable Mention Award 🏆

Meera Krishnamoorthy, Piyush Ranjan, John Erb-Downward, Robert Dickson, Jenna Wiens, “Machine Learning for Host Depletion of Metagenomic Data in Clinical Diagnostics,” Poster Presentation, Machine Learning in Computational Biology (MLCB) 2021, Nov. 2021.

Meera Krishnamoorthy, Piyush Ranjan, John Erb-Downward, Robert Dickson, Jenna Wiens, “Machine Learning for In Silico Host-Depletion of Metagenomics Samples,” Poster Presentation, 9th Annual Kahn Symposium, Dec. 2020.

Teaching

2020 - 2021

Instructor, *Artificial Intelligence for All (AI4All)*

Developed and helped students with Natural Language Processing projects involving translation and pun generation (Summer 2020)

Taught coursework on data visualization, feature processing, and k-means clustering (Summer 2021)

2018 - 2019 **Undergraduate Teaching Assistant**, *California Institute of Technology*
 CS/CNS/EE 156a: Learning Systems (Fall 2018)
 CS/CNS/EE 155: Machine Learning and Data Mining (Winter 2019)
 CS/CNS/EE 156b: Learning Systems Project Course (Spring 2019)

Professional and Academic Service

2023 - present **Michigan Science Center Coordinator**
 Developing AI-related exhibit for the Michigan Science Center.

2021 - present **Reviewer**
 ML4H 2024, Research2Clinics NeurIPS Workshop 2021, MLHC 2022, ML4H 2022, MLHC 2023

2021 - 2023 **Social Chair**, *Ensemble of Computer Science Ladies (ECSEL+)*
 Planned social activities for members of ECSEL+

Fall 2020 **Poster/Demo Session Co-chair**, *Michigan AI Symposium*
 Helped advertise and organize the Michigan AI Symposium, a day of research talks, demos, and posters that brings together AI enthusiasts from industry and academia.

2015 - 2019 **Co-editor in Chief**, *Caltech Undergraduate Research Journal*
 Oversee editing and publication process of journal.

Volunteer Work

2015 - 2019 **Member**, *Caltech Robogals*
 Teach robotics workshops to 1st - 8th grade students.

2015 - 2019 **Member**, *Caltech Society of Women Engineers*
 Mentor younger members about classes and internships. Volunteer in community outreach events.

2015 - 2019 **Tutor**, *RISE Program*
 Tutor 8th - 12th grade students in various math and science courses.