Meera Krishnamoorthy

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Education

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

Awards and Fellowships

| 2019 | Graduate Fellowship for STEM Diversity |
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| 2018 | Arthur E. Lamel Memorial Summer Undergraduate Research Fellowship |
| 2018 | SanPietro Travel Prize Recipient |
| 2015 | National Merit Scholar |

Research and Work Experience

2019 - Present

| | Advised by Professor Jenna Wiens. Work at the intersection of machine learning and healthcare. |
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| 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, California Institute of Technology Mentored by Professor Yisong Yue. Created and tested a novel technique combining domain knowledge and machine learning approaches to create safer and more accurate controllers. |
| 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 suc-cessful venture personnel. |
| Summer 2016 | Summer Undergraduate Research Fellow , NASA Jet Propulsion Laboratory Mentored by Dr. Glenn Orton.Performed mathematical modeling and spectral analysis to identify nature of astronomical impact on Jupiter. |

Graduate Student Research Assistant, University of Michigan

2013 - 2015 Research Intern, Stanford University

Mentored by Professor Shripad Tuljapurkar. Created mathematical models to simulate habitat degradation.

Selected Publications

Meera Krishnamoorthy, Jenna Wiens. "Cross-Validation for Longitudinal Datasets with Time-Varying Spurious Correlations," Conference Paper, *Under Review*

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

Meera Krishnamoorthy, Michael W. Sjoding, Jenna Wiens. "Off-label use of artificial intelligence models in healthcare," Comment, Nature Medicine (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, 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.

Thonorable 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 Langua

Developed and helped students with Natural Language Processing projects involv-

ing translation and pun generation (Summer 2020)

Taught coursework on data visualization, feature processing, and k-means cluster-

ing (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.