

Meera Krishnamoorthy

(408) 857-2695

meera@alumni.caltech.edu

Education

2019 - present	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	Graduate Fellowship for STEM Diversity
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 2018	Summer Undergraduate Research Fellow , <i>California Institute of Technology</i> 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 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.

Publications

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.

Andrew J. Taylor, Victor D. Dorobantu, **Meera Krishnamoorthy**, Hoang M. Le, Yisong Yue, Aaron D. Ames. “A Control Lyapunov Perspective on Episodic Learning via Projection to State Stability,” Conference Paper, *IEEE Conference on Decision and Control (CDC)*, Dec. 2019.

Presentations

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 , <i>Artificial Intelligence for All (AI4All)</i> 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 , <i>California Institute of Technology</i> 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

2021 - present	Reviewer MLHC 2022, Research2Clinics NeurIPS Workshop 2021, ML4H NeurIPS Workshop 2022
2021 - 2022	Social Chair , <i>Ensemble of Computer Science Ladies (ECSEL+)</i> Planned social activities for members of ECSEL+
Fall 2020	Poster/Demo Session Co-chair , <i>Michigan AI Symposium</i> 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 , <i>Caltech Undergraduate Research Journal</i> Oversee editing and publication process of journal.

Volunteer Work

2015 - 2019	Member , <i>Caltech Robogals</i> Teach robotics workshops to 1st - 8th grade students.
2015 - 2019	Member , <i>Caltech Society of Women Engineers</i> 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.