Roshni Sahoo

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Education

Stanford University 9/2020 - Current
Candidate for PhD in Computer Science.
Advisor: Stefan Wager

Massachusetts Institute of Technology 9/2016 - 6/2020
B.S. in Computer Science and Engineering, B.S. in Mathematics, and Minor in Literature.
GPA: 4.9/5.0.

Papers

1. **Roshni Sahoo**, Shengjia Zhao, Alyssa Chen, Stefano Ermon. Reliable Decisions with Threshold Calibration. In *Distribution-Free Uncertainty Quantification Workshop, International Conference on Machine Learning (ICML) 2021.*
2. Shengjia Zhao, Michael P. Kim, **Roshni Sahoo**, Tengyu Ma, Stefano Ermon. Calibrating Predictions to Decisions: A Novel Approach to Multi-Class Calibration. In *Distribution-Free Uncertainty Quantification Workshop, International Conference on Machine Learning (ICML) 2021.*
3. **Roshni Sahoo**, Ines Chami, Christopher Ré. Tree Covers: An Alternative to Metric Embeddings. In *Differential Geometry meets Deep Learning Workshop, Neural Information Processing Systems (NeurIPS) 2020.*
4. **Roshni Sahoo***, Divya Shanmugam*, John Guttag. Unsupervised Domain Adaptation in the Absence of Source Data. In *Uncertainty and Robustness in Deep Learning Workshop, International Conference on Machine Learning (ICML) 2020.*
5. Igor Gilitschenski, **Roshni Sahoo**, Wilko Schwarting, Alexander Amini, Sertac Karaman, Daniela Rus. Deep Orientation Uncertainty Learning based on a Bingham Loss. In *Eighth International Conference on Learned Representations (ICLR) 2020.*

Presentations

1. Calibrating Predictions to Decisions: A Novel Approach to Multi-Class Calibration.
Distribution-Free Uncertainty Quantification Workshop Poster Session, ICML 2021.
2. Reliable Decisions with Threshold Calibration.
Distribution-Free Uncertainty Quantification Workshop Poster Session, ICML 2021.
3. Tree Covers: An Alternative to Metric Embeddings.
Differential Geometry Meets Deep Learning Workshop Poster Session, NeurIPS 2020.
4. Unsupervised Domain Adaptation in the Absence of Source Data.
Uncertainty and Robustness in Deep Learning Workshop Poster Session, ICML 2020.
5. Deep Orientation Uncertainty Learning based on a Bingham Loss.
Schlumberger Robotics and Intelligent Automation Webinar 2020.
Poster Session, ICLR 2020.
Women in Data Science, Cambridge Workshop Poster Session 2020.
MIT Institute on the Foundations of Data Science Workshop Poster Session 2020.
6. Running Sums and Stopping Times of Various Probability Distributions.
MAA Undergraduate Poster Session, Joint Mathematics Meetings 2016.

Honors and Awards

NSF Graduate Research Fellowship Recipient	2020
Phi Beta Kappa Honor Society	2020
Kelly-Douglas Traveling Fellowship Recipient	2019
Angle Research and Innovation Scholar	2019
IEEE Eta Kappa Nu (HKN) Honor Society	2019
MIT Burchard Scholar	2018
Massachusetts Academic Decathlon State Champion	2016
Outstanding Poster Award, MAA Undergraduate Poster Session, JMM	2016
Siemens Research Competition National Semifinalist	2015

Teaching

Instructor, Inspirit AI, Stanford, CA	12/2020 - 4/2021
Instructor, Cambridge Math Circle, Cambridge, MA	3/2020 - 6/2020
Teaching Assistant, Introduction to Deep Learning, MIT	1/2020
Tutoring Chair, EECS Department, MIT	5/2019 - 5/2020
Instructor, Beautiful Patterns, Aguascalientes, Mexico.	5/2019
HKN Tutor, Fundamentals of Programming, Discrete Mathematics, MIT	9/2018 - 6/2019
Lab Assistant, Elements of Software Construction, MIT	2/2018 - 6/2018
Instructor, Global Teaching Labs, Barcelona, Spain	1/2018 - 2/2018

Outreach

Organizer, Stanford Computing and Society. 12/2020 - Current.

- Organizer of interdisciplinary group dedicated to bringing more discussions on societal and ethical implications of computing and CS research to the Stanford community.
- In collaboration with 3 graduate students, received of McCoy Family Center for Ethics in Society Small Grant to fund Ethics Roundtable Lunch, where researchers present and receive feedback on the ethical implications of their work.

Graduate Mentor, Stanford University. 9/2020 - Current

- Mentoring undergraduate students in Stanford's CS Mentorship Program and First-Generation and/or Low-Income (FLI) Community Mentorship Program.
- Providing feedback to students with underrepresented backgrounds on their applications to CS PhD programs in the Student-Applicant Support Program.

Membership Development Chair, Society of Women Engineers (SWE). 9/2017 - 6/2018

- Organized monthly community events for female engineering students. Volunteered at weekly outreach STEM workshops. Represented MIT at SWE National Conference (2017), USASEF (2018).

Industry

Modeling Engineering Intern, Two Sigma	6/2019 - 8/2019
Software Engineering Intern, Cruise Automation	6/2018 - 8/2018
Machine Learning Intern, Northrop Grumman	6/2017 - 8/2017