Sourav Sahoo

Operations Research Center, Massachusetts Institute of Technology
Email ◇ Website ◇ Google Scholar ◇ Github

Research Interests

Online Leaning, Game Theory, Mechanism Design.

Education

Doctor of Philosophy in Operations Research — Sept. 2023 - Present
Massachusetts Institute of Technology — GPA: 5.0/5.0
Advisor: Prof. Negin Golrezaei

Dual Degree (B.Tech & M.Tech) in Electrical Engineering — July 2017 - July 2022
Indian Institute of Technology, Madras — GPA: 9.56/10.00
Advisor: Prof. Abhishek Sinha
Thesis: The k-experts Problem.

Publications and Working Papers

C4. Learning Safe Strategies for Value Maximizing Buyers in Uniform Price Auctions
ICML 2025, 42nd International Conference on Machine Learning,
Negin Golrezaei and Sourav Sahoo.*
⋆ First Place, 2025 RMP Jeff McGill Student Paper Award.
⋆ Second Place, 2025 Michael H. Rothkopf Junior Researcher Paper Prize.

C3. Distributed Online Optimization with Byzantine Adversarial Agents.
ACC 2022, 41st American Control Conference,
Sourav Sahoo, Anand Gokhale, and Rachel Kalaimani.

C2. `k-experts` - Online Policies and Fundamental Limits
AISTATS 2022, 25th International Conference on Artificial Intelligence and Statistics,
Samrat Mukhopadhyay, Sourav Sahoo, and Abhishek Sinha.

C1. A Segment Level Approach to Speech Emotion Recognition Using Transfer Learning
ACPR 2019, 5th Asian Conference on Pattern Recognition,
Sourav Sahoo, Puneet Kumar, Balasubramanian Raman, and Partha Roy.

W1. Multi-Modal Detection of Alzheimer's Disease from Speech and Text
BIOKDD 2021, 20th International Workshop on Data Mining in Bioinformatics,
Amish Mittal†, Sourav Sahoo†, Arnhav Datar†, Juned Kadiwala†, Hrithwik Shalu, and Jimson Mathew.

WP1. Learning to Bid in Discriminatory Auctions with Budget Constraints
Negin Golrezaei and Sourav Sahoo.*

Awards and Honors

First Place, **RMP Jeff McGill Student Paper Award**, 2025.
Second Place, **Michael H. Rothkopf Junior Researcher Paper Prize**, 2025.
Caltech Summer Undergraduate Research Fellowship (SURF) in 2020.
All India Rank 49 among 1.5 million applicants in JEE Mains 2017.
Gold Medal in Indian National Physics Olympiad, 2017.
All India Rank 18 in Kishore Vaigyanik Protsahan Yojana, 2015.
Certificate of Merit in Indian National Mathematical Olympiad, 2015.

* Alphabetical
† Equal contribution

Industry Experience

Quantitative Research Analyst July 2022 - July 2023
JPMorgan Chase & Co. *Mumbai, India*

Data Science Intern Dec 2019 - Jan 2020
Gramophone - Transforming Agriculture *Bengaluru, India*

Teaching Experience

Teaching Assistant for EE1102: Introduction to Programming. Spring 2022
Teaching Assistant for EE5110: Probability Foundations for Electrical Engineers. Fall 2021
Teaching volunteer at Kendriya Vidyalaya (IIT Chennai) for high school science and mathematics. 2017-2018

Presentations and Talks

Learning Safe Strategies for Value Maximizing Buyers in Uniform Price Auctions

- MIT ORC Student Seminar, Cambridge, 2025.
- INFORMS Annual Meeting, Atlanta, 2025.
- MIT CSAIL Machine Learning Tea Talk, Cambridge, 2025.
- Online Learning and Economics Workshop @ ACM Economics and Computation (EC), Stanford, 2025.
- Market Innovation Workshop (MIW), Virtual, 2025.
- INFORMS Annual Meeting, Seattle, 2024.‡
- Data-Driven Decision Processes Workshop, Chicago, 2024.‡
- Revenue Management and Pricing (RMP) Section Conference, Los Angeles, 2024.‡
- Manufacturing and Service Operations Management (MSOM) Conference, Minneapolis, 2024.‡

Professional Services

Reviewer for *IEEE Transactions on Automatic Control*, *AISTATS 2026*.

Co-organizer, MIT ORC Student Seminar (Fall 2024, Spring 2025).

Co-organizer, Session on Generative AI for Markets, INFORMS Annual Meeting, 2025.

Skills

Languages: *Fluent:* English, Hindi. *Native:* Odia.
Programming: Python
Software & Libraries: Tensorflow, PyTorch, CVX, LaTeX

References

Prof. Negin Golrezaei
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Massachusetts Institute of Technology
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Prof. Patrick Jaillet
Electrical Engineering and Computer Sciences
Massachusetts Institute of Technology
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Prof. Abhishek Sinha
School of Technology and Computer Science
Tata Institute of Fundamental Research
abhishek.sinha@tifr.res.in

‡ An earlier version of the work was presented under the title 'Bidding in Uniform Price Auctions for Value Maximizing Buyers'.