Sourav Sahoo

Operations Research Center, Massachusetts Institute of Technology

Email ◇ Website ◇ Google Scholar ◇ Github

Research Interests

Online Leaning, Game Theory, Learning Theory, Market 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, Preprints and Technical Reports

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.[*]

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.

T1. SVRG-SO: SVRG for Stochastic Optimization
Sourav Sahoo.

T2. Online Subset Selection using α-Core with no Augmented Regret
Sourav Sahoo, Siddhant Chaudhary, Samrat Mukhopadhyay, and Abhishek Sinha.

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*

---

[*] Alphabetical   [†] Equal contribution

Awards and Honors

First Place in MIT ORC Common Experience Deep Learning Challenge in 2024.
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.

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
  – 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.[‡]

Skills

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

Services, Reviewing and Outreach

Journals: IEEE Transactions on Automatic Control (2).
Organizing: MIT ORC Student Seminar Coordinator (Fall 2024, Spring 2025).

References

Prof. Negin Golrezaei
Sloan School of Management
Massachusetts Institute of Technology
golrezae@mit.edu

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'.