Hari Bandi

CONTACT INFORMATION

Operations Research Center
Massachusetts Institute of Technology
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EDUCATION

Massachusetts Institute of Technology, Cambridge MA — 2016-present

Sloan School of Management - Operations Research Center

Candidate for Ph.D. in Operations Research

Advisor: Dimitris Bertsimas

Indian Institute of Technology Kharagpur, India — 2011-2016

Integrated Masters in Mathematics and Computer Science
Minor in Economics

WORK EXPERIENCE

Nference Inc, Cambridge, MA

Research Scientist — Summer 2020

Mentors: Colin Pawlowski, AJ Venkatakrishnan
Developed methods to analyze immunization records from Mayo Clinic and identify (existing) vaccines that have protective effect against SARS-CoV-2 infection.

IBM T.J. Watson Research Center, New York, NY

Research Intern, Business Analytics and Mathematical Sciences — Summer 2016

Mentors: Pavithra Harsha, Markus Ettl
Worked on a dynamic pricing problem for a major US airline employing consumer choice models and demand forecasting methods.

Columbia University, New York, NY

Research Intern, Industrial Engineering and Operations Research — Summer 2015

Mentors: Garud Iyengar, Vineet Goyal
Developed theory and algorithms for solving robust regression problems.
Awarded INFORMS Undergraduate OR Prize for this work.

Google, Hyderabad, India

Software Engineering Intern, Google AI — Summer 2014

Mentor: Shailesh Kumar
Developed algorithms to understand utterances in a conversation and generate coherent sentences in response using WordNet.

PUBLICATIONS

"Exploratory analysis of immunization records highlights decreased SARS-CoV-2 rates in individuals with recent non-COVID-19 vaccinations", submitted.

"Optimizing Influenza Vaccine Composition: From Predictions to Prescriptions", D. Bertsimas, to appear in *Proceedings of Machine Learning Research*.

"Learning a Mixture of Gaussians via Mixed Integer Optimization", D. Bertsimas and R. Mazumder, *INFORMS Journal on Optimization*, 2018.

"Robust Learning of Multivariate Gaussians and Mixtures: A Computational Discrete Optimization Approach", R. Mazumder, submitted.

"An Algorithmic Perspective on Regression Function Estimation with Smoothness and Shape Constraints", R. Mazumder, submitted.

"Statistical Hypothesis Testing via Robust Optimization", D. Bertsimas and R. Mazumder, in preparation.

"Regularized Linear Regression via Robust Optimization Lens", V. Goyal and G. Iyengar, working

paper.

HONORS AND AWARDS

Finalist in INFORMS Undergraduate OR award.
Award for Institute Silver medal at IIT Kharagpur.
Award for Academic Excellence at IIT Kharagpur.
Award for KVPY Fellowship from Department of Science and Technology, Govt. of India.
Award for INSPIRE Scholarship from Department of Science and Technology, Govt. of India.

TEACHING EXPERIENCE

Massachusetts Institute of Technology
Teaching Assistant

- 15.071: Analytics Edge (MBA Core), Spring 2020.
- 15.071: Analytics Edge (Advanced, MBAn Core), Spring 2019.
- 15.060: Data, Models and Decisions (MBA Core), Fall 2017.
- 15.089: Analytics Capstone Project (MBAn Core), Spring 2017.

TECHNICAL SKILLS

Languages: Python, Julia, C++, R and SQL.
Technologies: TensorFlow, Map-Reduce and Borg.