Soham Bakshi

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EDUCATION

University of Michigan, Ann Arbor August 2022-
PhD Statistics, advised by Prof. Snigdha Panigrahi

Indian Statistical Institute, Bangalore, India June 2022
B.Math (Honours) *First Division with Distinction*

RESEARCH

Broadly, I my research interest lies in the interface of theoretical machine learning and statistical inference. I am interested in creating and implementing innovative statistical techniques for inference after adaptive modeling of data. Currently, my research focuses on developing and applying selective inference methods for time-varying effect modification problems.

Technical Skills: C/C++, Python, R, LaTeX

PUBLICATIONS & PROJECTS

Bayes classifier cannot be learned from noisy responses with unknown noise rates 2022
Published as a Tiny Paper at ICLR 2023 (link)
A joint work with Subha Maity, University of Michigan

On the set of points of continuity and maximally discontinuous extensions 2021
Undergrad research paper, published at Resonance: Journal of Science Education (link)

How to approximate irrational numbers nicely? 2021
Undergrad research work *(not peer-reviewed)* (link)
Joint work with Prof. Tirthankar Bhattacharyya and Arka Das, Indian Institute of Sciences

SELECTED TALKS

Non-Identifiability of Bayes Classifier (slides) 2023
Joint Statistical Meet (JSM) 2023, Torronto, Canada

Hopf-Rinow's theorem and Geodesic Completeness (slides) 2021
VSRP 2021, School of Mathematics, TIFR, India

TEACHING

Undergraduate Research Program in Statistics (URPS) 2024
Mentored and supervised the research project development of University of Michigan undergraduates during the Winter semester of 2024, focusing on selective inference methods and applications in mobile health.

Teaching Assistantship Fall 2022-
Courses Taught: STATS 250 (Introduction to Statistics and Data Analysis), STATS 412 (Introduction to Probability and Statistics), STATS 500 (Statistical Learning 1: Regression), STATS 415 (Data Mining and Visualization)

Responsibilities include teaching lab, holding office hours, making and grading assignments.

Mathematics Coaching 2019-2022
Mentored undergraduate B.Math students for UG Directed Group Reading Program (UDGRP 2021). I both personally and professionally trained a number of high school students and undergrads for math olympiads and international competitions.