Siddharth Prusty

LinkedIn Profile

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Education

Duke University, Durham, NC — 2020-present
PhD in Quantitative Marketing, CGPA: 3.9/4.00
Advisors: Professor Carl Mela and Professor Wilfred Amaldoss

Columbia University, New York City, NY — 2018-2020
Master of Science in Operations Research, CGPA: 3.70/4.00

Indian Institute of Technology Kanpur, Kanpur, India — 2012-2016
B.Tech in Electrical Engineering with Minor in Algorithms, CGPA: 8.95/10.00

Research Interests

Substantive: Advertising auctions, Ad Effect Measurement, Pricing, Two-sided platforms
Methodological: Structural Econometrics, Causal Inference, Analytical Modeling

Skills

Python, SAS, SqL, R, Matlab, Mathematica, C, Stata, LaTeX

Publications

Robust Importance Weighting for Covariate Shift (with Henry Lam and Fengpei Li)
Proceedings of the Twenty Third International Conference on Artificial Intelligence and Statistics, PMLR 108:352-362, 2020.

Working Papers

Optimizing QScores for position auctions in marketplace (with Carl Mela & Hana Choi)
- Optimizing Quality Score indices in position auctions for a 2-sided online marketplace, so as to maximize total marketplace revenue due to clicks and conversions.
- Estimate a structural model to predict demand and supply side behaviour, and use it to optimize over the policy space of counterfactual QScore algorithms.

Pricing sustainable products (with Wilfred Amaldoss)
- Optimally pricing sustainable products in a competitive market where consumers have heterogeneous valuations on sustainability characteristics of goods.
- Inform optimal level of firm investment in sustainability, and its moderation with competition.

Professional Experience

IBM Research Labs, *Research Intern*, Armonk, NY — Summer 2020
Project: Designing disruption robust supply chain contracts
Mentors: Dr. Chandra Narayanaswami and Dr. Ashish Jagmohan

American Express, *Risk Data Analyst*, Gurugram, India — 2016-2018
Part of credit underwriting team for New Accounts Strategy. Responsibilities include analyzing data to identify potential opportunities, and implementing new credit models and risk strategies.

iRageCapital Advisory Pvt. Ltd., *Quant Strategist Intern*, Mumbai, India — Summer 2015

École Normale Supérieure, *Software Research Intern*, Paris, France — Summer 2014
Project: Validation of a compiler based on embedded systems

Awards and Honors

Columbia University, Shardashish Interschool Fellowship — 2018
IIT Kanpur, Academic Excellence Award — 2013
Honda Foundation, Honda Young Engineer and Scientist Award — 2014

Relevant Coursework

-**Analytics:** Algorithms for Machine Learning, Statistical Techniques in Datamining, Bayesian Models for ML, Optimization for ML, Supply Chain Analytics.

-**Econometrics:** Causal Inference & Treatment Effects (PhD), Econometric Theory (PhD), Structural Econometrics (PhD), Descriptive Causal Models (PhD).

-**Theoretical:** Microeconomic Theory (PhD), Stochastic Models sequence (PhD), Optimization Models sequence (PhD), Real Analysis.