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Duke University, Durham, NC

2020-present

PhD in Quantitative Marketing, CGPA: 3.92/4.00

Committee: Carl Mela(chair), Wilfred Amaldoss(co-chair), H. Choi, D.B. Brown, A. Collard-Wexler.

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 (Minor in Algorithms), CGPA: 8.95/10.00

RESEARCH INTERESTS

EDUCATION

Substantive: Retail Media, Sponsored Advertising, Sustainable consumption, Marketplaces.

Methodological: Optimization, Structural Econometrics, Analytical Modeling, Machine Learning.

PAPERS PUBLISHED OR UNDER REVIEW

Papers published Sustainable Consumption: A Strategic Analysis. (with Wilfred Amaldoss)

Major Revision at Marketing Science

- This paper investigates optimal firm response in the market for sustainable products, where firms compete on prices and product design of their sustainable offerings.
- Using a theoretical model where consumers have divergent preferences for sustainability, we derive counter-intuitive insights regarding prices, profits and consumer surplus.

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

Retail Media Search Monetization: An Algorithmic Approach. (Dissertation Paper, with Carl Mela and Hana Choi)

- This paper considers monetization of retail media search (search advertising in retail marketplaces) by optimizing the quality score algorithm to maximize marketplace revenue.
- Using data from a large online retailer, we show that the proposed algorithm maximizes revenue for the marketplace while also improving advertisers' welfare.

Conference Presentations

Sustainable Consumption: A Strategic Analysis

- 18th Annual Bass FORMS Conference, UT Dallas, 2024.
- Marketing for Environmental Sustainability Conference, Stanford University, 2023.
- ISMS Marketing Science Conference, 2022.

TEACHING EXPERIENCE

Instructor, Statistical Programming Bootcamp

2023

Developed and instructed week-long course on Python to incoming PhD students at Fuqua.

Teaching Assistant, Duke University

IIT Kanpur, Academic Excellence Award

2021-2026

Value Creation in Martech (2021/2023/2024 for Carl Mela), Pricing (2025 for Wilfred Amaldoss), Programming Analytics (2023 for Allison Chaney), Strategic Brand Management (2022/2023 for Tong Guo), Marketing Core (2022 for Srinivas Tunuguntla, 2021 for Tong Guo).

Teaching Assistant, Columbia University

2019-2020

2013

Stochastic Models & Applications (2020 for Ton Dieker), Introduction to Financial Engineering (2019/2020 for David Yao).

Awards and Honors Institute for Marketing Science Doctoral Consortium Fellow

Columbia University, Shardashish Interschool Fellowship

Honda Foundation, Honda Young Engineer and Scientist Award

2014

Professional Experience IBM Research Labs, Research Intern, Armonk, NYSummer 2020American Express, Risk Data Analyst, Gurugram, India2016-2018iRageCapital Advisory Pvt. Ltd., Quant Strategist Intern, Mumbai, IndiaSummer 2015École Normale Supérieure, Software Research Intern, Paris, FranceSummer 2014