EMPLOYMENT

Yale University, New Haven, CT

07/2025 - 06/2026

Postdoctoral Researcher at Center for Algorithms, Data and Market Design

EDUCATION

Columbia University, Graduate School of Business, New York, NY 09/2020 - 06/2025

Ph.D. candidate in Decision, Risk and Operations division.

Advisors: Prof. Omar Besbes and Prof. Yash Kanoria

University of Michigan, Ann Arbor, MI

07/2018 - 05/2020

Master of Science in Electrical and Computer Engineering.

Advisor: Prof. Vijay Subramanian

Indian Institute of Technology Madras, Chennai, India

08/2014 - 05/2018

Bachelor of Technology in Electrical Engineering, minor in Robotics. Advisor: Prof. Rahul Vaze, Tata Institute of Fundamental Research

RESEARCH INTERESTS I am broadly interested in the operations of online platforms. In particular, I develop models and methods to optimize the operations of these online platforms, with applications in order fulfillment, revenue management, matching markets and recommendation systems.

JOURNAL PUBLICATIONS

Feature-Based Dynamic Matching with Yilun Chen, Yash Kanoria and Wenxin Zhang. Forthcoming in Operations Research

- Appeared as an extended abstract in EC'23: ACM Conference on Economics and Computation.
- ★ Finalist, 2025 Michael H. Rothkopf Junior Researcher Paper Prize
- ★ First Place, 2024 Jeff McGill RMP Best Student Paper Prize

Dynamic Resource Allocation: Algorithmic Design Principles and Spectrum of Achievable Performances with Omar Besbes and Yash Kanoria. *Operations Research* 73(3):1273-1288

- ► An earlier version appeared with the title "The Multi-secretary problem with many types" as an extended abstract in EC'22: ACM Conference on Economics and Computation.
- ★ Second Place, 2024 Michael H. Rothkopf Junior Researcher Paper Prize
- ★ Finalist, 2023 INFORMS George Nicholson Student Paper Competition
- ★ Finalist, 2023 Jeff McGill RMP Best Student Paper Prize

Working Papers

What Is Your AI Agent Buying? Evaluations, Implications and Emerging Questions for Agentic E-Commerce with Amine Allouah, Omar Besbes, Josue Figueroa and Yash Kanoria. *Under Review*

◆ Accepted for WISE 2025 and MIT CODE 2025

Impact of Rankings and Personalized Recommendations in Marketplaces with Omar Besbes and Yash Kanoria. *Journal Version Under Preparation*

▶ Appeared as an extended abstract in EC'25: ACM Conference on Economics and Computation

The Fault in Our Recommendations: On the Perils of Optimizing the Measurable with Omar Besbes and Yash Kanoria. *Journal Version Under Preparation*

◆ An earlier version appeared in RecSys'24: ACM Conference on Recommender Systems

Conference Publications From Qualification Exams to Practice: Testing LLMs on Solving Stochastic Modeling Problems with Tianyi Peng, Yuhang Wu and Assaf Zeevi. WSC'25: Proceedings of the 2025 Winter Simulation Conference

MOTIF: Multi-Objective Tradeoff in F2P with Jikai Zou, Andrea Qualizza, Neo Huang, Shereif Reda and Yash Kanoria. CSS'25: 2025 Amazon Consumer Science Summit

Breaking the Unit Throughput Barrier in Distributed System with Parikshit Hegde, Rahul Vaze, Amira Alloum, Cedric Adjih. NCC'23: 29th National Conference on Communications

Low-cost aerial imaging for small holder farmers with Ranveer Chandra et al. COMPASS '19: Proceedings of the 2nd ACM SIGCAS Conference on Computing and Sustainable Societies

★ Best Paper Award at COMPASS'19

Speed scaling under QoS constraints with finite buffer with Parikshit Hegde and Rahul Vaze. WiOpt'18: 16th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks.

Awards

Finalist, Michael H. Rothkopf Junior Researcher Paper Prize, 2025 First Place, Jeff McGill RMP Best Student Paper Prize, 2024

Second Place, Michael H. Rothkopf Junior Researcher Paper Prize, 2024 Rising Star, Stanford Management Science and Engineering, 2024 Finalist, INFORMS George Nicholson student paper competition, 2023

Finalist, Jeff McGill RMP Best Student Paper Prize, 2023

Deming Doctoral Fellowship, Columbia Business School, 2023-2024 Narula Doctoral Fellowship, Columbia Business School, 2023

Best Paper Award, COMPASS'19, 2019

Industry Category Winner at Microsoft Global Hackathon, 2016

Recipient of Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship by Government of India, 2014 Recipient of National Talent Search Examination (NTSE) scholarship by Government of India, 2011

Patents

US20180213186 A1 Low-cost, Long-term Aerial Imagery

US20180213187 A1 Aerial imaging of a region using above ground aerial camera platform

Industry Internships

Amazon, Bellevue, Washington

June 2023 - September 2023

Designed algorithms for multi-objective optimization for order fulfillment problems.

Nokia Bell Labs, Paris, France

May 2018 - August 2018

Developed decoding schemes for distributed wireless systems with applications in 5G.

Microsoft Research, Bangalore, India

June 2016 - August 2016

Built low cost solutions to enable precision agriculture for small farm holders.

★ Industry Category Winner at Microsoft Global Hackathon

TEACHING

Columbia University, Teaching Assistant

EXPERIENCE

Business Analytics (MBA Core) Operations Management (EMBA Core) Business Analytics (EMBA core)

Spring 2023 Spring 2022

Fall 2023

Foundations of Optimization (PhD core) Fall 2021

Professional Service

Co-organizer for the NYC Operations Day PhD Colloquium, 2024

Brown Bag (DRO Internal Seminar) series co-organizer, 2022-2024 DRO PhD student representative, 2022-2024

Reviewer for Mathematics of Operations Research, Operations Research, Management Science

Presentations

What Is Your AI Agent Buying? Evaluation, Implications and Emerging Questions for Agentic E-Commerce

Source 2 Commerce	
Workshop on Information Systems and Economics (WISE)	December 2025
MIT Conference on Digital Experimentation (CODE)	November 2025
Rotman Young Scholar Seminar	November 2025
Yale Computer Science and Economics Day	September 2025
Workshop on AI and the Future of Collaborative Innovation, New York	September 2025

Impact of Rankings and Personalized Recommendations in Marketplaces

INFORMS Annual Conference, Atlanta, GA	October 2025
RMP Annual Conference, New York, NY	July 2025
EC'25: ACM Conference on Economics and Computation (EC), Stanfo	ord, CA July 2025

Dynamic Resource Allocation: Theory and Practice			
From Matching to Markets Workshop, Corsica, France	May 2025		
University of Minnesota, ISE	January 2025		
Mendoza School of Business, University of Notre Dame	January 2025		
Yale School of Management	January 2025		
Stanford Graduate School of Business	January 2025		
Cornell ORIE, Ithaca	December 2024		
Cornell Tech ORIE, New York	December 2024		
Imperial College Business School	December 2024		
Rotman School of Management, University of Toronto	December 2024		
Indian School of Business	November 2024		
NUS Business School	November 2024		
NYU Stern School of Business	November 2024		
Wharton School of the University of Pennsylvania	November 2024		
The Fault in Our Recommendations: On the Perils of Optimizing the Measurable			
Yale FDS Workshop on Social Algorithms (Poster)	October 2025		
Netflix ML Seminar, Online	November 2024		
RecSys'24: ACM Conference on Recommender Systems, Bari, Italy	October 2024		
Dynamic Resource Allocation: Algorithmic Design Principles and S	poetrum of Achiev-		
able Performances	pectrum of Acmev-		
WORDS, Duke Fuqua School of Business, Durham, NC	November 2024		
Operations Rookiepalooza, Kellogg School of Management, Chicago, IL	October 2024		
INFORMS Annual Conference, Seattle, WA	October 2024		
Cornell Young Research Workshop, Ithaca, NY	October 2024		
Purdue Operations Conference, West Lafayette, IN	August 2024		
IEOR Seminar, IIT Bombay, Mumbai, India	August 2024		
ISMP Conference, Montreal, Canada	July 2024		
RMP Annual Conference, Los Angeles, CA	July 2024		
MS&E Rising Stars Workshop, Stanford, CA	April 2024		
INFORMS Annual Meeting, Phoenix, AZ	October 2023		
Fulfillment Optimization Research Series, Amazon	August 2023		
TIFR, Mumbai, India	May 2023		
Feature-Based Dynamic Matching			
INFORMS Annual Conference, Atlanta, GA	October 2025		
INFORMS Annual Conference, Seattle, WA	October 2024		
MSOM Annual Conference, Minneapolis, MN	July 2024		
Marketplace Innovation Workshop, Online	May 2024		
RMP Annual Conference, London, England	June 2023		
Terri Annual Comercine, Bondon, Engrand	June 2029		
A PROOF: Approximately PaReto Optimal Order Fulfillment			
Deming Doctoral Fellowship Seminar, Columbia Business School	May 2024		
The multi-secretary problem with many types			
INFORMS Annual Meeting, Indianapolis, IN	October 2022		
EC'22: ACM Conference on Economics and Computation, Boulder, CO	July 2022		
MSOM Annual Conference, Munich	June 2022		
RMP Annual Conference, Online	June 2022		

Skills