CHAMSI HSSAINE

CONTACT

School of Operations Research & Information Engineering
Cornell University
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RESEARCH INTERESTS

Market design; revenue management and pricing; data-driven decision-making; algorithmic game theory.

EDUCATION

Cornell University, Ithaca, NY

Ph.D. in Operations Research, GPA: 4.06/4.0 — *May 2022 (expected)*

- *Advisor*: Prof. Siddhartha Banerjee
- *Minors*: Applied Mathematics, Production and Operations

M.S. in Operations Research — *March 2020*

Princeton University, Princeton, NJ

B.S.E. in Operations Research and Financial Engineering — *June 2016*

- *Honors*: Magna Cum Laude
- *Minor*: Applied and Computational Mathematics

JOURNAL PUBLICATIONS

Real-Time Approximate Routing for Smart Transit Systems
Siddhartha Banerjee, Chamsi Hssaine, Noémie Périvier, Samitha Samaranayake
ACM Measurement and Analysis of Computing Systems (ACM POMACS), 2021.
(Invited based on acceptance to *ACM SIGMETRICS '21*, June 2021.)
Finalist for the 2021 INFORMS Minority Issues Forum Paper Competition.

REFEREED CONFERENCE PUBLICATIONS

Real-Time Approximate Routing for Smart Transit Systems
Siddhartha Banerjee, Chamsi Hssaine, Noémie Périvier, Samitha Samaranayake
In *ACM SIGMETRICS '21*, June 2021.

Information Signal Design for Incentivizing Team Formation
Siddhartha Banerjee, Chamsi Hssaine. In *14th Conference on Web and Internet Economics (WINE '18)*, December 2018.
(Appeared as an Extended Abstract.)

SUBMITTED PAPERS

Earning Sans Learning: Noisy Decision-Making and Labor Supply on Gig Economy Platforms
Daniel Freund, Chamsi Hssaine
Under review at *Management Science*.

Pseudo-Competitive Games and Algorithmic Pricing
Siddhartha Banerjee, Chamsi Hssaine, Vijay Kamble
Under review at *Management Science*.

Plan Your System and Price for Free: Fast Algorithms for Multimodal Transit Operations
Siddhartha Banerjee, Chamsi Hssaine, Qi Luo, Samitha Samaranayake
Under review at *Operations Research*.

Working Papers

Timing of Opaque Promotions
Daniel Freund, Chamsi Hssaine, Jiayu Zhao.

Honors and Awards

Selected as a finalist for the INFORMS Minority Issues Forum Paper Competition, October 2021

Selected for the Young Researchers Workshop at Cornell ORIE, October 2021

Selected for the Rising Stars program in EECS at UC Berkeley, November 2020

Selected for the Stanford GSB Rising Scholars Conference, October 2020

Popular Poster Award, Mechanism Design for Social Good Workshop, June 2019

Kenneth H. Condit Prize, Princeton University, June 2016
Departmental award for leadership through academic achievement and community service

Presentations

Pseudo-Competitive Games and Algorithmic Pricing
- INFORMS Annual Meeting, Anaheim, CA, October 2021.
- ORIE Young Researchers Workshop, Cornell University, October 2021.
- CS Theory Seminar, Cornell University, September 2021.
- Revenue Management and Pricing Conference, Virtual, June 2021.

Satisficing Search and Algorithmic Price Competition
- Revenue Management and Pricing Conference, Virtual, June 2021.
- Marketplace Innovation Workshop (Poster), Virtual, May 2021.
- Imperial College-LBS-UCL OR/MS PhD Seminar, Virtual, March 2021.
- Stanford GSB Rising Scholars Conference, Virtual, October 2020.
- INFORMS Annual Meeting, Virtual, October 2020.
- Kellogg-Wharton OM Workshop, Virtual, July 2020.
- Candidacy Exam, Virtual, March 2020.

Real-time approximate routing for smart transit systems
- Vanderbilt University, TransitScope Lab Group, Virtual, January 2021.

Pricing a Mobility Marketplace
- INFORMS Annual Meeting, Seattle, WA, October 2019.
- Young Researchers Workshop (flash talk), Cornell University, October 2019.
- Mechanism Design for the Social Good Workshop, EC'19, June 2019.
- Marketplace Innovation Workshop, Stanford University, June 2019.

Teaching

ORIE 4580/5580, Simulation Modeling and Analysis: Teaching Assistant, Fall 2018
ORIE 3800, Information Systems Analysis: Teaching Assistant, Spring 2017-2018
ORIE 3500/5500, Probability and Stochastic Systems: Teaching Assistant, Fall 2016

Prior Industry Experience

Amazon, Applied Scientist Intern, June-August 2020
Project title: "Long-Term Impacts of Sponsored Products Interventions on Amazon Shoppers: Estimation and Optimization"

RAND Corporation, Summer Associate, May-August 2018
Project title: "Informing agent-based models with social influence networks: Sampling a large-scale urban network and learning from egocentric network data"

Deutsche Bank, Summer Associate, June-August 2015

CASTLE Labs, Research Intern, May-August 2014
Project title: "Developing a probability model for power grid faults using incomplete information"

Service

Journal Reviewer: MSOM, Management Science, Performance Evaluation, IISE Transactions
Conference Reviewer: IEEE American Control Conference (ACC '20)
Program Committees: Workshop on Operations of People-Centric Systems at EC'21

Organizations:

- ORIE PhD Diversity Ambassador, Cornell University, 2021-Present
- Panelist, Academic Street Smarts Workshop for 1st Year PhD students in OR, Cornell University, 2020-2021
- Cornell Tech Liaison, Operations Research Graduate Students' Association, Cornell University, 2019-2020
- Mentoring Chair, Women in OR, Cornell University, 2018-2020
- Member, Graduate Women in Science, Cornell University, 2016-Present

Selected Graduate Coursework

Online Decision-Making and Market Design; Game Theory and Mechanism Design; Analysis of Algorithms; Networks, Crowds, and Markets; Mathematical Programming; Foundations of Information Networks; Applied Stochastic Processes; Statistical Principles; Multi-arm Bandit Models; Computational Methods in Operations Research