

# CHAMSI HSSAINE

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CONTACT	School of Operations Research & Information Engineering Cornell University <a href="https://chamsihssaine.github.io">https://chamsihssaine.github.io</a>	288 Rhodes Hall Ithaca, NY 14853 <a href="mailto:ch822@cornell.edu">ch822@cornell.edu</a>
RESEARCH INTERESTS	Market design; revenue management and pricing; data-driven decision-making; algorithmic game theory.	
EDUCATION	<b>Cornell University</b> , Ithaca, NY Ph.D. in Operations Research, GPA: 4.06/4.0 <span style="float: right;"><i>May 2022 (expected)</i></span> – <i>Advisor</i> : Prof. Siddhartha Banerjee – <i>Minors</i> : Applied Mathematics, Production and Operations M.S. in Operations Research <span style="float: right;"><i>March 2020</i></span> <b>Princeton University</b> , Princeton, NJ B.S.E. in Operations Research and Financial Engineering <span style="float: right;"><i>June 2016</i></span> – <i>Honors</i> : Magna Cum Laude – <i>Minor</i> : Applied and Computational Mathematics	
JOURNAL PUBLICATIONS	<b>Real-Time Approximate Routing for Smart Transit Systems</b> Siddhartha Banerjee, Chamsi Hssaine, Noémie Périvier, Samitha Samaranyake <i>ACM Measurement and Analysis of Computing Systems (ACM POMACS)</i> , 2021. (Invited based on acceptance to <i>ACM SIGMETRICS '21</i> , June 2021.) <b>Finalist for the 2021 INFORMS Minority Issues Forum Paper Competition.</b>	
REFEREED CONFERENCE PUBLICATIONS	<b>Real-Time Approximate Routing for Smart Transit Systems</b> Siddhartha Banerjee, Chamsi Hssaine, Noémie Périvier, Samitha Samaranyake In <i>ACM SIGMETRICS '21</i> , June 2021. <b>Information Signal Design for Incentivizing Team Formation</b> Siddhartha Banerjee, Chamsi Hssaine. In <i>14th Conference on Web and Internet Economics (WINE '18)</i> , December 2018. (Appeared as an Extended Abstract.)	
SUBMITTED PAPERS	<b>Earning Sans Learning: Noisy Decision-Making and Labor Supply on Gig Economy Platforms</b> Daniel Freund, Chamsi Hssaine Under review at <i>Management Science</i> . <b>Pseudo-Competitive Games and Algorithmic Pricing</b> Siddhartha Banerjee, Chamsi Hssaine, Vijay Kamble Under review at <i>Management Science</i> . Accepted for presentation at the NeurIPS 2021 Workshops on Learning in Presence of Strategic Behavior and Learning and Decision-Making with Strategic Feedback. <b>Plan Your System and Price for Free: Fast Algorithms for Multimodal Transit Operations</b>	

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