### Michael L. Hamilton

Contact Information 330 Mervis Hall 3950 Roberto Clemente Drive Pittsburgh, PA 15260 ⊠ mhamilton@katz.pitt.edu mhamilton-pitt.github.io/ Updated July, 2021.

**Employment** 

### University of Pittsburgh, Pittsburgh, PA

Summer 2019 -

Katz Graduate School of Business Area: Business Analytics and Operations

Title: Assistant Professor

Education

### Columbia University, New York, NY

Fall 2014 - Spring 2019

Ph.D. in Operations Research

• Thesis: Pricing Tools and Analysis for Emerging e-Commerce Technologies

# Rutgers University, New Brunswick, NJ

Fall 2010 - Spring 2014

B.S. in Mathematics

• Minors in Computer Science and Operations Research

# Working Papers

Note: Author ordering on all papers is alphabetical, as is convention in OR/MS.

- 1. Hamilton, M., Singal, R., Churning while Learning: Maximizing User Engagement in a Recommendation System. In preparation for journal submission.
  - Finalist, 2020 RMP Data-Driven Research Challenge.
- 2. DiChristofano, A., Hamilton, M., Linardi, S., McCloud, M. Project 412Connect: Bridging Students to Communities. In preparation for journal submission.
  - Accepted to the 1<sup>st</sup> ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO), 2021.
  - Engaged Scholarship Development Initiative Grant Winner (Amount: \$3000).
- 3. Hamilton, M., Feature-Based Market Segmentation and Pricing. In preparation for journal submission.

### Published Papers

- 1. Chen, N., Elmachtoub, A., Hamilton, M., Lei, X., Loot Box Pricing and Design. Management Science (Dec. 2020).
  - Accepted to the 21<sup>st</sup> ACM Conference on Economics and Computation (EC), 2020.
  - Finalist, 2021 CSAMSE Conference Best Paper Award.
  - Winner, 2019 IBM Best Student Paper Award in Service Science.
  - Invited to present at the Federal Trade Commission (FTC) Workshop on Consumer Issues Related to Loot Boxes, 2019.
- 2. Elmachtoub, A., Gupta, V., Hamilton, M., The Value of Personalized Pricing. Management Science (April 2021).
  - Accepted to the  $15^{th}$  Conference on Web and Internet Economics (WINE), 2019.
  - Finalist, INFORMS Service Science Best Cluster Paper Competition, 2018.

- 3. Elmachtoub, A., Hamilton, M., The Power of Opaque Products in Pricing. Management Science (Jan. 2021).
  - Accepted to the  $13^{th}$  Conference on Web and Internet Economics (WINE), 2017

# Previous Papers

- 4. Hamilton, M., Hoang, P., Murray, J., Stafford, C., & Tran, H. A Dynamic Feature Selection Based LDA Approach to Baseball Pitch Prediction.

  Trends and applications in knowledge discovery and data mining (2015), 125-137.
- Hamilton, M., Hoang, L. Layne, J. Murray, D. Padget, C. Stafford, & H. Tran. Applying Machine Learning Techniques to Baseball Pitch Prediction. Proc. of the 3rd Int. Conf. on Pattern Recognition Applications and Methods (2014).

# Prior Experience

## MediaMath, New York, NY Research Science Intern

Summer 2017

Amazon Research, Seattle WA. Research Science Intern

Summer 2016

# North Carolina State University, Raleigh, NC

Summer 2013

Undergraduate Researcher

### Presentations

Notes: (\*) symbol implies talk was given by a coauthor. The (C) implies the talk was given online.

"Project 412Connect: Bridging Students to Communities"

• ACM EAAMO Conference 2021, Remote Conference. (C\*) Oct 2021

"Churning while Learning: Maximizing User Engagement in a Recommendation System"

• RMP Section Conference 2021, Remote Conference. (C) July 2021

"Feature-Based Market Segmentation and Pricing"

• INFORMS	Annual	Conference 2021	, Anaheim	CA.	Oct.	2021

• RMP Section Conference 2021, Remote Conference. (C) July 2021

• CORS Annual Conference 2021, Remote Conference. (C) June 2021

"Loot Box Pricing and Design"

• RA	AP Section	Conference	2021, R	emote (	Conference.	$(C^*)$	) July 2021
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• CSAMSE Conference 2021, Remote Conference. (C\*) June 2021

• CORS Annual Conference 2021, Remote Conference. (C\*) June 2021

• ACM EC Conference 2020, Remote Conference. (C\*)

July 2020

• POMS Annual Conference 2020, Minneapolis MN. (C) May 2020

• INFORMS Annual Conference 2019, Seattle WA. (\*) Oct. 2019

• Federal Trade Commission (FTC) Workshop on Consumer Issues, Washington D.C. (\*) Sept. 2019

	"The Value of Personalized Pricing"						
	• WINE Conference 2019, New York NY.		Dec. 2019				
	• MSOM Conference 2018, Dallas TX.		July 2018				
	• RMP Section Conference 2018, Toronto CN. (*)		June 2018				
	• POMS Annual Conference 2018, Houston TX.		May 2018				
	• INFORMS Annual Meeting 2019, Seattle WA.		Oct. 2019				
	• INFORMS Annual Meeting 2018, Phoenix AZ.		Oct. 2018				
	$\bullet$ INFORMS Annual Meeting 2017, Houston TX.		Oct. 2017				
	"The Power of Opaque Products in Pricing"						
	• UCLA, Anderson School of Management, Los Ange	Feb. 2019					
	• University of Pittsburgh, Katz Graduate School of Business, P.						
		Dec. 2017					
	• MSOM Conference 2017, UNC, Chapel Hill NC.		June 2017				
	• POMS Annual Conference 2017, Seattle WA.		May 2017				
	$\bullet$ INFORMS Annual Meeting 2018, Phoenix AZ.	Oct. 2018					
	• INFORMS Annual Meeting 2016, Nashville TN.						
	• RMP Section Conference 2016, NYU, New York N	June 2016					
	"Applying Machine Learning Techniques to Baseball Pitch Prediction"						
	• JMM, MAA Undergraduate Student Poster Session	n	Jan. 2014				
Teaching Experience	<ul><li>University of Pittsburgh, Pittsburgh, PA</li><li>Instructor</li><li>BUSQOM 1080 Data Analysis for Business</li></ul>	Fall 2019,	2020, 2021				
	Columbia University, New York, NY Teaching Assistant						
	• IEOR 4111 Operations Consulting.	pring 2018					
	• IEOR 8100 Learning and Optimization.	pring 2016					
	-	• IEOR 4004 Optimization Models & Methods. Fall 2015					
	• IEOR 4106 Stochastic Models.	S	pring 2015				
	Rutgers University, New Brunswick, NJ Recitation Mentor/Grader						
	• CS 111, Introduction to Computer Science.						
	- MATH 151/152, Calculus I & II	Fall 2012	- Fall 2014				

# Honors & Awards

Finalist, 2021 CSAMSE Conference Best Paper Award	2021
Finalist, 2020 RMP Data-Driven Research Challenge	2021
Engaged Scholarship Development Initiative Summer Design Fellow	2021
Winner, IBM Best Student Paper Award in Service Science (to Xiao I	<i>Lei</i> ) 2019
Finalist, Service Science Best Cluster Paper Competition	2018
JMM Outstanding Poster Presentation Winner	2014
High Honors in Mathematics (Top 4), Rutgers University	2014
Weill Scholarship	2013 - 2014
SAS Excellence Award, The Harry J. Riskin Scholarship	2012 - 2014
Scarlet Scholarship	2010 - 2014
Dean's Scholarship	2010 - 2014
Rutgers Mathematics Honors Track	2013 - 2014
Rutgers School of Arts and Sciences Honors Program	2010 - 2014

# Professional Activities & Service

### Ad-Hoc Reviewer

- Journals: IISE Transactions, Naval Research Logistics, Management Science, Production and Operations Management, Computational Management Science, Manufacturing & Service Operations Management.
- Conferences: ACM Economics and Computation (EC) (2020, 2021), ACM Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO) (2021).

### Session Chair

-INFORMS Annual Meeting, Anaheim, 2021

### Program Committee

-ACM Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO)  $\left(2021\right)$ 

### University Service

- Coach for 1<sup>st</sup> Katz Super Analytics Challenge (SAC), 2021 (Pitt)
- CAASI Spring 2021 Reading Group Organizer (Pitt)
- Co-organizer, Discussant Lead for the  $50^{th}$  NBER Decentralization Conference: Mechanism Design for Vulnerable Populations
- Faculty Mentor for ACM Economics and Computation (EC) (2020).
- 2018 Academic Job Market Panel Organizer (Columbia)
- 2017 IEOR-DRO Seminar Student Organizer (Columbia)

Misc.

Languages: Python, R, Julia, Matlab, Java, ATEX

Volunteering: School 2 Career (S2C) Tutor, Grief to Action (G2A) Member

Citizenship: USA

References are available by request.