# Mingrui (Ray) Zhang

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EDUCATION University of Washington, Michael G. Foster School of Business

June 2024

Doctor of Philosophy in Business Administration, Operations Management

(Expected)

Minors: Information Systems, Economics

Research Methods Advisors: Shi Chen, Yong Tan

**Columbia University** 

Dec 2018

Master of Arts in Economics

GPA 3.80/4.00

University of Illinois at Urbana-Champaign

May 2017

Bachelor of Science in Mathematics and Economics

Major GPA: 3.92/4.00

Graduated with High Distinction in Mathematics and Distinction in Economics

RESEARCH INTERESTS

#### **Research Focus**

Retail platform, Online reviews, Consumer behaviors, Crowdfunding

### Methodology

Game-theoretical Model, Econometrics, Economic Theories, Natural language processing, Experimental Design, Machine Learning, Causal Inference

#### **PROJECTS**

### **Working Papers**

- "Frenemies in Retail Markets: Brick-and-Mortar Retailer's Partnership with Online Retail Platforms on Consumer Returns" (with Lin Hao, Yong Tan)
  - Identified that the "loop-conversion effect" indicates that the partnership on consumer return, together with the brick-and-mortar retailer's showrooming service, brings extra demand for the online retail platform.
  - Showed that the "traffic-exchange effect" indicates that the partnership undercuts the online retail platform's benefit from showrooming.
- "When to Disclose Product Quality under Online Reviews?" (with He Huang, Yufeng Yang, Hongyan Xu, Tingting Nian)
  - Set up a stylized model to examine the interplay between two solutions under two selling schemes: wholesale and agency selling.
  - Showed that the firm is more likely to disclose quality when online review information becomes increasingly precise due to the loss of consumers who transfer from the not search but purchase group to the search but not purchase group
- "Information Leakage Prior to SEC Form Filings—Evidence from TAQ Millisecond Data" (with Steven Wei Ho, Weiting Hong)
  - Analyzing the time-stamps of all SEC form filings as well as the stock prices in the 30-minute interval pre- and post-publication by utilizing the TAQ millisecond data.
  - Found strong evidence of information leakage in the 30-minute intervals around Edgar acceptance timestamp of corporate SEC filings using TAQ Millisecond Data, and results are not driven by momentum.

### **Ongoing Projects**

- "Uncovering Demand Distributions and Consumer Network Effects based on Vending Machine Transactions and Geolocation Data" (with Yong Tan, Waning Chen, Xusen Cheng)
- "Time for Next Project? Effects of Users' Opinion on Developers" (with Behnaz Bojd, Yingda Lu)

- "Contract Design for Cloud Services with Privacy and Security Concerns" (with Hongyan Xu, Ying Wang)
- "Projects We Love: Atypicality versus Popularity on Crowdfunding Platforms" (with Yu Kan, Yifan Yu)

### CONFERENCES PRESENTATIONS

"Uncovering Demand Information and Consumer behaviors — Evidence from Vending Machine Transactions"

2022 INFORMS Annual Meeting Indianapolis

October 2022

• "Frenemies in Retail Markets: Brick-and-Mortar Retailer's Partnership with Online Retail Platforms on Consumer Return"

2020 Conference on Information Systems and Technology Virtual November 2020

"Information Leakage Prior to SEC Form Filings—Evidence from TAQ Millisecond Data"
 American Finance Association 2020 Annual Meeting San Diego
 January 2020

AWARDS AND ISOM Outstanding Teaching Award, UW Foster
HONORS Richard B. Peterson Ph.D. Fellowship, UW Foster
Michael G. Foster Students First Scholar, UW Foster

2020 & 2021 2019 & 2022

2022

Edmund J James Scholar, UIUC 2014-2017

Dean's List, UIUC FA 13/15/16 SP 16

ACADEMIC

Journal Reviewer for Production and Operations Management

SERVICE Conference Reviewer for ICIS, CIST, CSWIM

### PHD

#### **Information Systems**

Coursework

- Advanced Research Topics in Information Systems I
   Topics: (Latent) Instrumental Variables, Discrete Choice Models, Bayesian Learning,
   Hidden Markov Models
- Advanced Research Topics in Information Systems II Yingfei Wang Topics: Machine Learning, Text Mining, Deep Learning, Computer Vision, Reinforcement Learning
- Advanced Research Topics in Information Systems III Topics: Digital Piracy, Economics of Information Systems

Debabrata "Deb" Dey

### **Operations Management**

• Stochastic Process

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Topics: Renewal Theory, Discrete & Continuous time Markov chains, Stochastic Dominance

• Stochastic Models and Queuing

Kamran Moinzadeh

Topics: Deterministic Queues, Bounds and Approximations, Networks, Series & Cyclic Queues, Stochastic Simulation

• Advanced Topics in Inventory Management

Kamran Moinzadeh

Topics: Period Review Models/Lot Sizing/Just in Time Systems, Contracts and Channel Coordination, Multi-Echelon Inventory Systems

### **Economics & Econometrics & Statistics**

Microeconomics I Quan Wen
Microeconomics II Xu Tan and Jacques Lawarree
Microeconomics III Jacques Lawarree

Econometrics I Thomas Richardson

Econometrics II Jing Tao

Econometrics III Eric Zivot

Empirical Industrial Organization	Yuya Takahashi
Design and Analysis of Experiments	Tim Skalland

# **Computer Science**

Machine Learning Kevin Jamieson Interactive Learning Kevin Jamieson

Courses	As Teaching Assistan	t
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As Teaching Assistant	
TMMBA 516 Operations And Supply Chain Management (4.7/5)	AU 2021/22
QMETH 510 Probability And Statistics (4.6/5)	AU 2021/22 & WI 2022/23
SCM 512 Spreadsheet Modeling For Business Enterprise (4.8/5)	SU 2022
SCM 501 Probability And Statistics (4.6/5)	SU 2022
SCM 520 Forecasting, Inv. Management, And Supply Chain Analy	ytics (4.7/5) WI 2022/23
EMBA 510 Statistics For Management	SP 2022
BUS AN 512 Data Management And SQL	SU 2021
IS 300 Intro to Information Systems	SP 2021
QMETH 500 Statistical Data Analysis For Management	WI 2021
OPMGT 565 Business Analytics-Tools For Big Data	AU 2020
SCM 530 Managing And Mining Big Data	AU 2020
QMETH 201 Introduction To Statistical Methods	WI 2020 & SP 2020
	TMMBA 516 Operations And Supply Chain Management (4.7/5) QMETH 510 Probability And Statistics (4.6/5) SCM 512 Spreadsheet Modeling For Business Enterprise (4.8/5) SCM 501 Probability And Statistics (4.6/5) SCM 520 Forecasting, Inv. Management, And Supply Chain Analy EMBA 510 Statistics For Management BUS AN 512 Data Management And SQL IS 300 Intro to Information Systems QMETH 500 Statistical Data Analysis For Management OPMGT 565 Business Analytics-Tools For Big Data SCM 530 Managing And Mining Big Data

## PROFICIENCIES Skills

Python, R, SAS, SQL, Stata, Mathematica, Maple, Microsoft Office

# Languages

English (fluent), Chinese (native)