# 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 the effect of Smart Vending Machine? —A Tensor Completion approach using Transactions and Geo-location Data" (with Yong Tan, Waning Chen, Xusen Cheng)
- "Time for Next Project? Effects of Users' Opinion on Developers" (with 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

2022

HONORS Richard B. Peterson Ph.D. Fellowship, UW Foster

2020 & 2021

Michael G. Foster Students First Scholar, UW Foster

2019 & 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

## **Operations Management**

Stochastic Process
 Foad Iravani

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

• Stochastic Models and Queuing

Kamran Moinzadeh

Debabrata "Deb" Dey

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 Xu Tan and Jacques Lawarree Microeconomics II 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 Assistant	
TAUGHT	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

## PROFICIENCIES Skills

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

## Languages

English (fluent), Chinese (native)