# 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: Yong Tan, Shi Chen

## **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)

Under review at Production and Operations Management

- 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.
- "Uncovering Demand Distributions and Consumer Network Effects based on Vending Machine Transactions" (with Yong Tan, Xusen Cheng)
  - Investigate consumer behaviors and demand information using over two million vending machine transactions across users.
  - How would different types of consumers behave in different settings?

- "Projects We Love: Atypicality versus Popularity on Crowdfunding Platforms" (with Yu Kan, Yifan Yu)
  - Examine the effect "Project we love" badge on customers and what types of projects would win the badge using project information from Kickstarter.
  - By text mining approach, build a similarity network of crowdfunding projects to measure the degree of atypicality innovation for these projects.
- "Time for Next Project? Effects of Users' Opinion on Developers" (with Behnaz Bojd, Yingda Lu)
  - Study developers' interactions with users based on updates and reviews on Steam.
  - Developers can increase their reputation by improving the game and implementing the reviews, but this process is costly. When should a developer stop focusing on the existing game and move on to the next game?

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

## PHD Information Systems

Coursework

- Advanced Research Topics in Information Systems I
  Topics: (Latent) Instrumental Variables, Discrete Choice Models, Bayesian Learning,
  Hidden Markov Models, etc.
- Advanced Research Topics in Information Systems III Debabrata "Deb" Dey Topics: Digital Piracy, Economics of Information Systems

# **Operations Management**

Stochastic Process Foad Iravani Stochastic Models and Queuing Kamran Moinzadeh Advanced Topics in Inventory Management Kamran Moinzadeh

# **Economics & Econometrics & Statistics**

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

## PROFICIENCIES Skills

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

#### Languages

English (fluent), Chinese (native)