

# Qian Zhang (Kenneth)

PHD CANDIDATE · BUSINESS ANALYTICS & OPERATIONS

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## Education

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### University of Pittsburgh

PH.D. IN BUSINESS ANALYTICS & OPERATIONS

- Advisor: Arian Aflaki

Pittsburgh, PA

2019.08 - present

### Penn State University

M.A. IN THEORETICAL ECONOMICS

- Advisor: Ran Shorrer

State College, PA

2016.08 - 2018.05

### the University of Tokyo

M.A. IN ECONOMICS

- Advisor: Michihiro Kandori

Tokyo, JP

### University of International Business & Economics

B.A. IN ECONOMICS / LAW

Beijing, China

## Research Interest

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**Areas:** Information design, platform design, mechanism design, consumer behavior in operations, revenue management and pricing, supply chain management, machine learning applications

**Methodologies:** Game theory, optimization, econometrics, machine learning

## Publications

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### UNDER REVIEW & WORKING PAPERS

Zhang, Qian, w/ Arian Aflaki, Is Your Price Personalized? Alleviating Customer Concerns with Inventory Availability Information, Under Review in **Operations Research**

Zhang, Qian, w/ Arian Aflaki, Rating Platform Design with Reference Effects, *In Preparation for Submission*

Zhang, Qian, w/ Y., Peng, Y., Tao, & Pandu Tadikamalla, A Multi-attribute Group Decision Making Method based on a New Score Function under Hesitant Intuitionistic Fuzzy Linguistic Term Sets Environment, *In Preparation for Submission*

Zhang, Qian, w/ Ran Shorrer, Strategic Application & Preference Submission Timing in Constrained School Choice Matching, *In Preparation for Submission*

### IN PROGRESS

Zhang, Qian, w/ Esther Gal-Or, Luying Wang, Optimal Regulation Paradigms Design with firm's R&D Incentive

Zhang, Qian, School Choice Matching with Incomplete Information on the School Side: Sampling Equilibrium Approach

Zhang, Qian, The Evolution of Preference under OLG Model with Imperfect Information, Probabilistic Election and Coalition

Zhang, Qian, Pattern Recognition for Dividend Forecasting: Deep Learning Approach

### MEDIA REFERENCE

Personalizing the Prices While Keeping Customers Happy  
The FinReg Blog, Sponsored by the Duke Financial Economics Center, January 2023

## BOOK CHAPTERS

Zhang, Qian, “Mechanism Design Implementation Strategy in Industrial Policy Applications”,  
Book Chapter in “Recent Developments in New Structural Economics: The First Winter Conference of New Structural Economics”, by Justin Yifu Lin, etc., Peking University Press, 2016 (In Chinese)

## PROFESSIONAL SERVICES

Ad-Hoc Reviewer  
European Journal of Operational Research  
Communications in Statistics - Theory and Methods  
Decision Science Institute Annual Conference 2023

## Teaching Experience

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### INSTRUCTOR (UNIVERSITY OF PITTSBURGH)

Spring 2023 Data Mining (Graduate Level), **Evaluations: 4.60/5**  
**Master of Science Student Choice Awards for Outstanding Teaching**  
Fall 2021 Statistical Analysis (Graduate Level), **Evaluations: 4.61/5**

### TEACHING ASSISTANT (UNIVERSITY OF PITTSBURGH)

2023 Advanced Topics in Applied Microeconomics (Executive Doctor of Business Administration)  
2022 Quantitative Research Methods (Executive Doctor of Business Administration)  
2020 - 2022 Statistical Analysis: Uncertainty, Prediction, and Quality Improvement (Graduate Level)  
2021 Data Mining (Graduate Level)  
2021 Decision Technology in Operations Management (Graduate Level)

### TEACHING ASSISTANT (PENN STATE UNIVERSITY)

2017 Development Economics (Undergraduate Level)  
2017 Microeconomics (Undergraduate Level)  
2016 International Economics (Undergraduate Level)

### TEACHING ASSISTANT (THE UNIVERSITY OF TOKYO)

2015 - 2016 Advanced Microeconomics (Graduate Level)  
2015 Microeconomics (Undergraduate Level)  
2015 Mathematical Economics (Graduate Level)

## Presentations

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*\* presenting author*

### 1. IS YOUR PRICE PERSONALIZED? ALLEVIATING CUSTOMER CONCERNS WITH INVENTORY AVAILABILITY INFORMATION

\*2023 INFORMS Annual Meeting (2023 October, Phoenix AZ, USA) (**Scheduled:** Session WB25, October 18, 9:30 AM - 10:45 AM, CC-North 131A)

2023 INFORMS Annual Revenue Management & Pricing (RMP) Section Conference (2023 July, London, UK)

2023 MSOM Annual Conference (2023 June, Montreal, Canada)

\*2023 POMS Annual Conference (2023 May, Orlando FL, USA)

\*2022 DSI Annual Conference (2022 November, Houston TX, USA)

### 2. PRICING & RATING SYSTEM DESIGN WITH REFERENCE EFFECT

\*2023 DSI Annual Meeting (2023 November, Atlanta GA, USA) (**Scheduled:** November 19, 10:00 AM - 11:30 AM, International Level, International Salon C)

### 3. MECHANISM DESIGN IMPLEMENTATION STRATEGY IN INDUSTRIAL POLICY APPLICATIONS

\*2015 New Structural Economics Annual Conference (2015 December, Beijing China)

### 4. THE EVOLUTION OF PREFERENCE UNDER OLG MODEL WITH IMPERFECT INFORMATION, PROBABILISTIC ELECTION AND COALITION

\*2016 Japanese Game Theory Annual Conference (2016 February, Tokyo JP)

\*2015 University of Tokyo Microeconomics Seminar (2015 October, Tokyo JP)

## Awards, Fellowships, & Grants

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2023 Master of Science Student Choice Award for Outstanding Teaching, University of Pittsburgh  
Dean's PhD Merit Scholar, University of Pittsburgh

2022 Sheth PhD Fellowship, Sheth Foundation  
Dean's PhD Merit Scholar, University of Pittsburgh

2021 Geroge G. Main Fellowship, University of Pittsburgh

2019 - 2020 Myra G. Mervis Fellowship, University of Pittsburgh

2016 - 2018 Teaching Assistant Scholarship, Penn State University

2016 Annual Research Grant (DC 1), Japan Society for the Promotion of Science (JSPS)  
Special Research Fellowship, Japan Society for the Promotion of Science (JSPS)  
Research Assistant Scholarship, the University of Tokyo

2015 Scholarship for Academic Excellence, the University of Tokyo  
Teaching Assistant Scholarship, the University of Tokyo

## Industry Experience

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### Gusto

Remote

#### RESEARCH SCIENTIST/DATA COMPETITION PROJECT

2022.05 - 2022.08

- Initiated the real-time-post-leads Conversion Score Prediction model for R&D Tax Credit using Deep Learning Models
- Achieved 2nd place award in the Gusto Internal Data Competition

### Bloomberg L.P.

Tokyo, JP

#### DATA SCIENTIST/SPECIALIST

2018.05 - 2019.07

- In charge of BDVD (Dividend Forecasting) product for Japan Market, covering more than 3,000 Japanese companies
- Initiated and led the Dividend Forecasting global expansion project, increased global coverage from 8,000 to 21,000 and accuracy by 41% using Machine Learning models such as RNN, LSTM, and Time Series models
- Participated in News Headline and Material Automation using NLP models, such as RoBERTa model

### Japan Society for the Promotion of Science(JSPS)

Tokyo, JP

#### SPECIAL RESEARCH FELLOW (DC 1)

2015.04 - 2016.07

- Constructed a mathematical model to build the structured hypothesis for examining the effects of network links and industrial policy implementation mechanisms on firms' technological competitive advantage
- Collected and analyzed data using Econometrics and Causal Inference models