Qian Zhang (Kenneth)

PHD STUDENT · BUSINESS ANALYTICS & OPERATIONS

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 https://github.com/kennethqianzhang

Education

University of Pittsburgh   *Pittsburgh, PA*
PH.D. IN BUSINESS ANALYTICS & OPERATIONS   *2019.08 - present*
- Advisor: Prof. Arian Aflaki

Penn State University   *State College, PA*
M.A. IN THEORETICAL ECONOMICS   *2016.08 - 2018.05*
- Advisor: Prof. Ran Shorrer

the University of Tokyo   *Tokyo, JP*
M.A. IN ECONOMICS   *2013.04 - 2016.07*
- Advisor: Prof. Michihiro Kandori, Prof. Akihiko Matsui

Research Interest

Primary Fields: Customer behavior in operations, revenue management and pricing, information design, platform design, supply chain management, machine learning applications

Methodologies: Game Theory, Optimization, Econometrics, Machine Learning

Publications

PUBLISHED

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

IN REVIEW

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

READY FOR SUBMISSION

Zhang, Q., w/ Arian Aflaki, Review Platform Design with Reference Effects

Zhang, Q., 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

Zhang, Q., w/ Ran Shorrer, Strategic Application & Preference Submission Timing in Constrained School Choice Matching

WORKING PAPER

Zhang, Q., w/ Jinyong Jeong, Dynamic Information Revelation as Matching with Contracts

Zhang, Q., w/ Esther Gal-Or, Luying Wang, Opitmal Bayesian Persuasion Regulation Design with firm's R&D Incentive

Zhang, Q., Pattern Recognition for Dividend Forecasting: Deep Learning Approach

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

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

IN PREPARATION

Zhang, Q., w/ Arian Aflaki, Multi-Dimensional Optimal Rating Design

Teaching Experience

Spring 2023	**Data Mining (Graduate Level)**, Instructor	*University of Pittsburgh*
	Evaluations: 4.74/5, with response rate 52.63%, **Master of Science Student Choice Awards for Outstanding Teaching**,	
Fall 2021	**Statistical Analysis (Graduate Level)**, Instructor	*University of Pittsburgh*
	Evaluations: 4.70/5, with response rate 63.16% ,	
Fall 2023	**Applied Economics (Executive Doctor of Business Administration)** , Teaching Assistant	
Fall 2022	**Quantitative Research Methods (Executive Doctor of Business Administration)**, Teaching Assistant	
Spring 2022	**Statistical Analysis (Graduate Level)**, Teaching Assistant	
Fall 2021	**Statistical Analysis (Graduate Level)**, Teaching Assistant	
Spring 2021	**Data Mining (Graduate Level)**, Teaching Assistant	
Spring 2021	**Decision Technology in Operations Management (Graduate Level)**, Teaching Assistant	
Spring 2021	**Statistical Analysis (Graduate Level)**, Teaching Assistant	
Fall 2020	**Statistical Analysis (Graduate Level)**, Teaching Assistant	
Fall 2017	**Development Economics (Undergraduate Level)** , Teaching Assistant	*Penn State*
Spring 2017	**Microeconomics (Undergraduate Level)**, Teaching Assistant	
Spring 2016	**International Econmoics (Undergraduate Level)**, Teaching Assistant	
Spring 2016	**Advanced Microeconomics (Graduate Level)** , Teaching Assistant	*U-Tokyo*
Fall 2015	**Microeconomics (Undergraduate Level)**, Teaching Assistant	
Fall 2015	**Mathematical Economics (Graduate Level)**, Teaching Assistant	
Spring 2015	**Advanced Microeconomics (Graduate Level)**, Teaching Assistant	

Presentations
* presenting author

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

*2023 INFORMS Annual Meeting (2023 October, Pheonix AZ, USA)

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)

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

2023	**Master of Science Student Choice Awards 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

Industrial Experience & Services

Media Reference

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

Industrial Experience

Gusto *Remote*
Research Scientist/Data Competition Project *2022.05 - 2022.08*
- Initiated and created the real-time-post-leads Conversion Score Prediction model for R&D Tax Credit

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
- Performed pattern recognition and forecasting model analysis for various financial products such as Index Membership and VC screening process evaluation with non-linear patterns

Japan Society for the Promotion of Science(JSPS) *Tokyo, JP*
Special Research Fellow (DC 1) *2015.04 - 2016.07*
- Conducted theoretical research on the Industrial Policy implementation mechanism in Japan and China
- 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