

Mingao Xie

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Education

Georgetown University

Ph.D. in Economics

2021 – May 2027 (expected)

Washington, DC, USA

University of Texas at Austin

M.A. in Economics

2019 – 2020

Austin, TX, USA

Chongqing University

B.S. in Engineering Management

2015 – 2019

Chongqing, China

Research Fields

Industrial Organization, Platform Markets, Advertising Auction

Job Market Paper

The Dealer's Problem: Two-Sided Pricing and Inventory Management in Second-Hand Markets

I explore the pricing strategy of a two-sided used book platform that faces a complex pricing and inventory management problem. Their current static pricing is not profit-maximizing, so I built a dynamic pricing model that lets the platform adjust prices based on inventory, increasing profit by 0.86% to 12.84% in counterfactual analysis.

Work Experience

Consultant, Asian Development Bank

March 2025 – August 2025

Work on Mastercard's digital payment adoption project

Instructor, Georgetown University

Math Camp for Incoming Master's Students in Economics

2024, 2025, 2026

Intermediate Microeconomics

Summer 2026

Intermediate Macroeconomics

Summer 2023

Teaching Assistant, Georgetown University

2022 – Present

Game Theory, Causal Inference, Behavioral Economics, Political Economy and Public Policy

Work in Progress

Dynamic Model of Strategic Entry-Exit in the US Airline Industry

This research examines airline entry and exit decisions under demand uncertainty, focusing on how firms learn from competitors' past market outcomes. Using data from the U.S. airline industry, the study explores how low-cost carriers (LCCs) strategically enter routes abandoned by legacy carriers, leveraging observed failures to reduce uncertainty. A structural learning model is developed to capture firms' dynamic decision-making, incorporating Bayesian updating and market signals. The findings contribute to understanding market selection, competitive dynamics, and the role of learning in industry entry decisions.

Online Ads Auction and Multiple Agents Problem

We study the bidding mechanism underlying online advertising, in which each search query triggers a multi-slot auction: vendors bid for ad slots, with higher-ranked slots attracting more user attention and yielding higher click-through rates. This setting involves multiple agents: users who search, vendors who bid, and the platform running the auction, each with distinct and often competing objectives. We examine how this multi-agent structure shapes slot allocation and overall welfare.

iPhone Trade-Ins and Upgrade Cycles

I built a theoretical dynamic structural model of consumer upgrade behavior and optimal product-release cycles and designed a nested fixed-point GMM estimation algorithm to estimate consumers' willingness to wait for upgrades.

Conferences and Presentations

Georgetown Applied Microeconomics Seminar

2026 (scheduled)

Georgetown Center for Economic Research Alumni Conference

2026

Economics Graduate Student Organization

2025

Georgetown Industrial Organization

2024

Awards, Fellowships, and Grants

Sixth Year Merit-Based Fellowship, Georgetown University	2026
Ph.D. Economics Summer Fellowship, Georgetown University	2021-2022
Graduate School Assistantship, Georgetown University	2022-2026
SCS PhD Assistantship Award	2023, 2026 summer
Outstanding Graduate, Chongqing University	2019

Skills

Programming (highly proficient): Python, R, SQL, Stata, Julia
Language: English (fluent), Chinese (native)