Application for the Digital Economics and AI Tutorial

Contact Details

Field	Detail
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Graduate Study Details

Phd at UC Berkeley Haas school of Business

Program: Quantitative Marketing
Current Year in Program: 3rd Year

Relevant course of study:

Course Code	Title	Description
ECON 204	Mathematical Tools for Economics	Math for econ PhD requirement
ECON 201A	Economic Theory	Econ PhD required sequence
ECON 220A	Industrial Organization	Econ PhD IO sequence requirement
ECON 240A	Econometrics	Econ PhD required sequence
MATH 272	Interdisciplinary Topics in Mathematics	Market design
ECON 201B	Economic Theory	Econ PhD required sequence
ECON 220B	Industrial Organization	Econ PhD IO sequence requirement
ECON 240B	Econometrics	Econ PhD required sequence
ECON 244	Applied Econometrics	Econ PhD metric sequence
PHDBA 269A	Seminar in Marketing: Buyer Behavior	Quant Marketing sequence

PHDBA 269C	Seminar in Marketing: Marketing Strategy	Quant Marketing sequence
PHDBA 269D	Special Research Topics in Marketing	Game theory
ECON 241A	Econometrics	Econ PhD metric sequence
PHDBA 269B	Seminar in Marketing: Choice Modeling	Empirical methods in Marketing and Industrial Organization
PHDBA 269D	Special Research Topics in Marketing	Algorithms and Games + Information Design
STAT 238	Bayesian Statistics	https://stat238.berkeley.edu/spring-2025/
COMPSCI 294	Special Topics	Agentic AI

Master's at Stanford

Program: Management Science and Engineering, Computational Social Science track
Status: graduated in 2022

Relevant course of study:

Course Code	Title	Description
CS 229	Machine Learning	Graduate-level intro to ML
MS&E 213	Introduction to Optimization Theory	Program requirement
MS&E 327	Topics in Causal Inference	
CS 224W	Machine Learning with Graphs	Network ML
ECON 271	Intermediate Econometrics II	Econ Phd metrics sequence
MS&E 311	Optimization	OR Phd sequence
ECON 293	Machine Learning and Causal Inference	Apply ML to causal inference
MS&E 321	Stochastic Systems	OR stochastic process course
ECON 202	Microeconomics I	Econ Phd micro sequence
MS&E 234	Data Privacy and Ethics	
MS&E 284	Data Science of Organizations	
STATS 361	Causal Inference	Stats Phd level causal inference

Research Interests

On the supply side, I study product line design and quality signaling on online platforms, investigating how firms structure their portfolios to mitigate information asymmetry in digital marketplaces. On the demand side, I examine how emerging technologies reshape decision-making. Specifically, I analyze the causal impact of AI-driven tools on consumer search behavior and information acquisition costs. Additionally, I investigate how advancements in product display technology influence substitution patterns and conversion in omnichannel retail environments.

Current Research Projects

Quality Through Expansion: The Spillover Effects of Add-on Products

with Olivia Natan and Mingduo Zhao

Though the effects of product line design have been well-documented in theory, there is scant empirical evidence on the signalling value of product line design and add-on pricing. We investigate the impact of product extensions on product line performance and investment in quality maintenance. We study this in the context of video game downloadable content (DLC) on Steam, the dominant digital distribution platform covering about three-quarters of the U.S. PC market. We use a detailed panel of over 50,000 game titles to study the treatment effect of product line extension on base product performance, engagement, and subsequent firm investment into quality using imputation estimators and variation in release timing. We find that DLC launches double base game sales, with pronounced spikes during the first few days. DLC releases also coincide with increased user engagement, evidenced by rises in daily reviews and concurrent player counts. The effect on sales does not necessarily reflect quality signaling - these could occur solely due to advertising effects. However, producers are more willing to invest in product quality: bug fixes increase by 12 percentage points on average. These findings underscore how product line extensions can serve as a valuable tool for publishers.

Mass Layoffs and Career Transitions

As a research assistant at the Golub Capital Social Impact Lab, Stanford GSB 2021-2023
Advisor: Professor Susan Athey

This project proposes a novel approach to detect mass layoffs using resume data and analyze the longitudinal behavior of affected users. Specifically, we identify companies that announce mass layoffs and track users' labor market decisions over time, such as changes in occupation, industry, or geographic location.