



Stony Brook
University
Department of Economics

Job Market Packet

2025-2026

Fall 2025 Edition



Stony Brook University

Department of Economics

Social & Behavioral Science Building, 6th Floor
Stony Brook, New York 11794-4384

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October 2025

Dear Colleague:

Please find enclosed a packet containing information about our students on the job market. It contains two summary sheets: the first identifies the research and teaching interests of our students on the market this year, and the second indicates their respective advisors. A curriculum vitae of each student are also included. All of these students plan to defend their dissertations by next summer.

Reference letters can be obtained from our Placement Administrator, Tim Chin, by email: timothy.chin@stonybrook.edu or graduate_economics@stonybrook.edu.

We would appreciate hearing from you about your personnel requirements. Please feel free to contact me if you need more detailed or specific information.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Stern".

Steven Stern
Professor of Economics
Placement Committee, Chair
steven.stern@stonybrook.edu

A handwritten signature in black ink, appearing to read "Chang Liu".

Chang Liu
Assistant Professor of Economics
Placement Committee, Member
chang.liu.11@stonybrook.edu

Research Interests

	Ahmad Al Khawaja	James Gluzman	Jiaxu Han	Xin Lu	Siyuan Lyu	Jiajun Tian	Junyu Zhang
Applied Game Theory	P				S		
Applied Microeconomics			P	P	S	P	P
Car Market			P				
Development Economics					S		
Economics of Networks	S						
Education				S			P
Empirical Industrial Organization		P	P			P	
Health Economics		P		P			S
Industrial Organization	S					P	
Innovation					P		
Labor Economics				P			P
Political Economy	S						
Public Policy		P					
Structural Econometrics			S				

P: indicates primary field
S: indicates secondary field

Stony Brook University

Department of Economics
Stony Brook, New York 11794-4384

Summary Sheet of Students & Their Respective Advisors

Ahmad Al Khawaja

Yair Tauman*
Pradeep Dubey*
Hugo Benitez-Silva
Ting Liu
Eran Shmaya

James Gluzman

Yiyi Zhou*
Steven Stern*
Ting Liu
Kathleen McGarry

Jiaxu Han

Steven Stern*
Sandro Brusco
Yiyi Zhou

Xin Lu

Steven Stern*
Sandro Brusco
Mark R. Montgomery
David Wiczer

Siyuan Lyu

Mihai Manea*
Pradeep Dubey
Ting Liu
Eran Shmaya

Jiajun Tian

Yiyi Zhou*
Ting Liu
Mark R. Montgomery

Junyu Zhang

Steven Stern*
Mark R. Montgomery
Yiyi Zhou

* indicates the Primary Advisor for student

Ahmad Alkhawaja

Curriculum Vitae

Department of Economics
Stony Brook University
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Stony Brook, NY 11794-4384
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25 Texaco Ave Apt 103
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EDUCATION

- Ph.D. Department of Economics, Stony Brook University, Stony Brook, 2026 (anticipated)
Dissertation: *Navigating Conflict and Peace: Strategic Dynamics in Asymmetric Power Structures*
Committee: Yair Tauman (chair), Pradeep Dubey, Eran Shmaya
- M.S. Department of Economics, University at Buffalo, Buffalo, 2019
- M.B.A. School of Business Administration, American Univ. of Sharjah, Sharjah, UAE, 2016
- B.S. Department of Computer Sci. and Eng., American Univ. of Sharjah, Sharjah, UAE, 2011

Additional Training and Certification

Certificate of Effective Teaching Practice, Lumen Circles Fellowship in Advanced Generative AI for Teaching & Learning, Lumen Learning, 2025

Using Artificial Intelligence (AI) Effectively in Teaching and Learning, SUNY Center for Professional Development, 2025

Inclusive Teaching and Learning Certificate Program, SUNY Center for Professional Development, 2025

Online Teaching Certificate, Center for Excellence in Learning and Teaching, Stony Brook University, 2022

PUBLICATIONS

Conference Proceedings

- 2014 Zualkernan, I., Al Khawaja, A., Zubaydi, F., & Hussain, T. (2014). Integrating Peer-to-Peer Inquiry-Based Learning with a Crowd-Sourcing Platform.
In *EDULEARN14 Proceedings* (pp. 2252-2261). IATED.

In Preparation

Strategic Conflict Between Two Groups of Players: The Impact of Player Heterogeneity

Strategic Conflict Dynamics with Convex Cost Functions

Coalitions and Conflict: Strategic Resource Allocation in Two-Stage Games

From Conflict to Peace: The Role of Networks and Peer Effects

CONFERENCE ACTIVITY

Papers Presented

- 2025 Strategic Conflict Dynamics with Quadratic Cost Functions, Western Economic Association International's 100th Annual Conference [Virtual Day], San Francisco, CA, June 17.
- 2025 Coalitions and Conflict: Strategic Resource Allocation in Two-Stage Games, 2025 Midwestern Economic Association's 89th Annual Conference, Kansas City, MO, March 21-23.
- 2025 Strategic Conflict Between Two Groups of Players: The Impact of Player Heterogeneity, Eastern Economic Association's 51st Annual Conference, New York, NY, February 21-23.
- 2024 Strategic Conflict between Two Groups of Players: Non-Cooperative and Cooperative Approach, 35th Stony Brook International Conference on Game Theory, Stony Brook, NY, July 15-18.

Discussant

- 2025 "The Effects of Competition in the Retail Gasoline Industry," 2025 Midwestern Economic Association's 89th Annual Conference, Kansas City, MO, March 21-23.
- 2025 "Product Purchasing Contest: A Strategy to Leverage Competition among Consumers," Eastern Economic Association's 51st Annual Conference, New York, NY, February 21-23.

TEACHING EXPERIENCE

Stony Brook University, Instructor of Record

Mathematical Statistics (Spring 2026, Fall 2025, Spring 2024) [F2F]

Game Theory (Winter 2026, Winter 2025, Summer 2024) [online]

Intermediate Microeconomic Theory (Spring 2025) [F2F]

Stony Brook University, Teaching Assistant

Mathematical Statistics (Fall 2024) [F2F]

Intermediate Microeconomic Theory (Fall 2023, Fall 2022, Fall 2021, Fall 2019) [F2F]

Intermediate Microeconomic Theory (Summer 2023, Spring 2021) [online]

Data Science and Machine Learning in Economics (Spring 2023) [F2F]

Introduction to Economics (Fall 2020) [online]

Intermediate Macroeconomic Theory (Spring 2020) [hybrid]

American University of Sharjah, Lab Assistant

Object-Oriented Programming for Business Applications (Spring 2015)

Digital Systems (Fall 2013)

Advanced Digital System Design (Spring 2013)

Introduction to Computer Science II (Fall 2012)

Introduction to Computer Science I (Spring 2012)

RESEARCH EXPERIENCE

2020-2023 Development of dynamic model solutions and simulations using various techniques in both Python and MATLAB

Automated Driving using Deep Q-Learning

Cournot Competition and Firm Learning: algorithms for agent-based models

2014-2016 Data collection and analysis of bankruptcy data of US companies using SAS and SQL

Strategic analysis of Amazon's forward integration

A study of talent management systems in the UAE and the GCC region

Integrating peer-to-peer inquiry-based learning with a crowd-sourcing platform (in EDULEARN14 Proceedings)

PROFESSIONAL SERVICE

To Profession

Session Chair, "Market Mechanisms," Eastern Economic Association's 51st Annual Conference, New York, NY, 2025

To University

Administrator, Stony Brook Center for Game Theory, 2020-2022

OTHER PROFESSIONAL EXPERIENCE

Software Developer, Microsystems L.L.C., Dubai, UAE, 2011-2013

PROFESSIONAL ASSOCIATIONS

American Economic Association, 2025-present

Game Theory Society, 2025-present

RELATED PROFESSIONAL SKILLS

Software

Python, R, MATLAB, C++, C#, Java, VB, PHP, SAS, SQL, and LaTeX

LANGUAGES

Arabic: Native reading, writing, speaking

French: Intermediate reading, writing, speaking

REFERENCES

Yair Tauman, Leading Professor
Department of Economics
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Pradeep Dubey, Leading Professor
Department of Economics
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Eran Shmaya, Professor
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Ting Liu, Associate Professor - Undergraduate Program Director (teaching reference)
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Phone: +16316327532

Hugo Benitez-Silva, Associate Professor (teaching reference)
Department of Economics
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James Gluzman

Department of Economics
Stony Brook University
Stony Brook, NY, 11794

Phone: (347) 466 - 0004
Email: james.gluzman@stonybrook.edu
Website: www.jamesgluzmanecon.github.io

Education

Stony Brook University
Ph.D. - Economics
B.S. - Applied Mathematics and Economics

Stony Brook, NY
Expected May 2026
May 2020

Research Interests

Empirical Industrial Organization, Health Economics, Public Policy

Working Papers

The Welfare Effects of Accountable Care Organizations (*Job Market Paper*)

Regulation of Contract Generosity in Selection Markets: The Case of Medicare Advantage
with Yiyi Zhou

Long Term Care in the United States and Around the World: Caring For Those With Severe Cognitive Impairment
with Gopi Shah Goda, Brian McGarry and Kathleen McGarry

Work In Progress

Physician Agency Under Conflicts of Interest
with Ting Liu and Yiyi Zhou

Quality Signaling Under Price Transparency
with Yiyi Zhou

Search Frictions and Risk Selection in Medicare Advantage

Research Experience

National Bureau of Economics Research (NBER)

Research Assistant to Prof. Kathleen McGarry

January 2024 - Present

Stony Brook University

Research Assistant to Prof. Yiyi Zhou

January 2025 - August 2025

Research Assistant to Prof. Mihai Manea

May 2022 - August 2024

Teaching Experience

Instructor of Record

Mathematical Foundations of Contemporary Economic Theory (<i>Graduate</i>)	Fall 2024, Fall 2025
Mathematical Statistics (<i>Undergraduate</i>)	Spring 2024, Spring 2025
Health Economics (<i>Undergraduate Online</i>)	Winter 2024, Summer 2024, Winter 2025, Summer 2025

Teaching Assistant

Applied Microeconomics	Fall 2023
Mathematical Statistics	Fall 2022
Intermediate Macroeconomics	Spring 2022
Introduction to Economics	Fall 2021

Grants and Awards

Graduate Fellowship	2020 - 2026
William S. Daves Outstanding Teaching Award - <i>Best Performance by a Graduate Instructor</i>	2025

Conferences

NBER Coordinating Center on the Economics of AD/ADRD Prevention, Treatment, and Care	2025
NBER Conference on Long Term Care Around the World, London	2024

Skills Summary

Programming Languages: Matlab, Python, Stata, R, SQL, SAS
Languages: English (Native), Russian (Fluent), Spanish (Conversational)

Department Service

Economics Research Group - Vice President	August 2022 - May 2025
Webmaster	August 2022 - August 2024

Personal

Citizenship: United States

References

Prof. Yiyi Zhou (*Main Advisor*)
Department of Economics
Stony Brook University
yiyi.zhou@stonybrook.edu

Prof. Steven Stern (*Co-Advisor*)
Department of Economics
Stony Brook University
steven.stern@stonybrook.edu

Prof. Ting Liu
Department of Economics
Stony Brook University
ting.liu@stonybrook.edu

Prof. Kathleen McGarry
Department of Economics
University of California, Los Angeles
mcgarry@econ.ucla.edu

Abstracts

The Welfare Effects of Accountable Care Organizations (*Job Market Paper*)

This paper studies the welfare effects of Accountable Care Organizations (ACOs), a policy whose goal is to reduce healthcare spending for Traditional Medicare patients. ACOs are groups of healthcare providers whose performance is evaluated by comparing a spending benchmark to the total outpatient and inpatient spending of assigned patients. Spending below the benchmark results in a financial reward given to the ACO, while spending above the benchmark results in a penalty. The welfare impact of this policy is theoretically ambiguous, as lower spending may reduce quality of care. To quantify these effects, I develop a structural model of supply and demand in the Medicare outpatient facility market where facilities compete in outpatient spending and quality. The model incorporates endogenous quality provision and spillovers onto Medicare Advantage patients, whose healthcare spending is not directly targeted by the program. I estimate the model using the universe of hospital-based claims from New York State. A counterfactual simulation that removes ACOs from the market shows that ACOs increase welfare by \$1.09 billion. Spillovers onto Medicare Advantage patients account for 32% of the consumer welfare gains.

Regulation of Contract Generosity in Selection Markets: The Case of Medicare Advantage

Co-authored with Yiyi Zhou

In selection markets where serving different consumers incurs different costs, private firms may engage in cream-skimming by designing their contracts to attract profitable consumers and avoid unprofitable consumers, potentially harming consumer welfare. Policymakers have often tackled this issue by imposing direct restrictions on the level of generosity firms can offer. However, the impact of such regulations on welfare remains unclear, contingent on the market's level of selection and other policies in place. Our study of the Medicare Advantage market reveals that consumers exhibit diverse healthcare needs and considerable moral hazard. The recent regulation on maximum out-of-pocket expenses, mandated by the Affordable Care Act, improves consumer welfare by 19% on average, especially benefiting those with high healthcare needs, while compressing private insurers' markups. Government spending on the Medicare program decreases as the reduction in spending on Traditional Medicare outweighs the increased subsidies to private insurers.

Long Term Care in the United States and Around the World: Caring for those with Severe Cognitive Impairment

Co-authored with Gopi Shah Goda, Brian McGarry and Kathleen McGarry

The population of the United States, along with much of the world, is aging rapidly, with long-term care expenditures accounting for roughly 2% of GDP. Using the Health Retirement Survey, we use measures of respondents' cognition and long-term care usage to quantify the long-term care cost burden of severe cognitive impairment. We show that individuals with severe cognitive impairment are significantly more likely to use informal care, formal care, and nursing home care than those without cognitive impairments, with informal care being the most common type of support. We place an economic value on each type of care, valuing informal care using the forgone wage method. Our findings indicate that the cost burden attributable to severe cognitive impairment represents nearly 50% of all long-term care costs, despite this group constituting only about 6% of the population. Finally, we compare these estimates with evidence from other countries to place the U.S. experience in an international context.

Jiaxu Han

Stony Brook, New York | Jiaxu.han@stonybrook.edu | +16313049509 | [Linkedin](#)

EDUCATION

Stony Brook University, Stony Brook, NY, U.S. Doctor of Philosophy in Economics, Specialization in Industrial Organization	Expected May 2026
Stony Brook University, Stony Brook, NY, U.S. Master of Business Administration in Finance	May 2019
Northeast Petroleum University, Daqing, Heilongjiang, China Bachelor of Science in Economics	May 2017

SKILLS

- Proficient in R, Python, Stata, MATLAB, SQL, and Microsoft Office (Excel, PowerPoint, Word). Machine learning, and large-scale data processing.
- 7+ years of experience in data analysis, visualization, and working with large-scale datasets from Amazon, Consumer Expenditure Survey (CES) (1M+ observations), Health and Retirement Study (HRS), and Highway Statistics Series.
- Strong background of mathematical modeling, including discrete choice models, dynamic models, Monte Carlo simulations, causal inference, etc.
- Excellent public speaking and presentation skills, capable of conveying complex technical concepts to diverse audiences.
- Proficient in English, native in Chinese, beginner in French.

WORK EXPERIENCE

Amazon.com, Inc., Seattle, WA, U.S.

<i>Economist Intern</i>	<i>June 2025 – September 2025</i>
<ul style="list-style-type: none">• Designed and implemented an estimation and counterfactual pipeline in Python from raw data to business application, including IV-2SLS and nested logit models.• Processed large datasets with 7M+ observations and generated analytical plots and tables to highlight key insights.• Effectively communicated with manager and team members, and delivered results to stakeholders from diverse backgrounds.	

Department of Economics, Stony Brook University, Stony Brook, NY, U.S.

<i>Teaching Assistant</i>	<i>Aug 2021 – Present</i>
<ul style="list-style-type: none">• Assisted in Statistics (2 semesters), Econometrics (4 semesters), and Intermediate Macroeconomics (1 semester).• Led two weekly recitations for classes of 40-70 students, guiding them through homework, R, and Excel.• Coordinated grading, tracked teaching progress, and proctored exams.	
<i>Instructor of Industrial Organization, Data Science and Machine Learning in Economics</i>	<i>July – Aug 2024, 2025</i>
<ul style="list-style-type: none">• Designed the syllabus and coordinated teaching assistant tasks.• Prepared and delivered lectures, assignments, and exams for 40 students.• Provided academic support and addressed student inquiries.	
<i>Research Assistant for Professor Steven Stern</i>	<i>July 2024 – Oct 2024</i>
<ul style="list-style-type: none">• Process bi-annual Health and Retirement Study (HRS) survey data (1994-2018) using Stata.• Standardize questionnaire variables across years for consistent analysis.• Collaborate with the professor to adjust and ensure data consistency.	

RESEARCH EXPERIENCE

Department of Economics, Stony Brook University, Stony Brook, NY, U.S.

<i>Households' car portfolio and maintenance choice. (Job Market Paper)</i>	<i>Aug 2021 – Present</i>
<ul style="list-style-type: none">• Developed a dynamic discrete choice model to analyze U.S. household car portfolio choices and maintenance decisions.• Managed and processed over 1M observations from CES data (1996-2023) using Stata.• Estimated the model via Maximum Simulated Likelihood in Python.	
<i>Pricing Strategy for a Software Company to Enter an Immature Market</i>	<i>Aug 2020 – Dec 2020</i>
<ul style="list-style-type: none">• Built an economics model to quantify the two-sided effects of software piracy on profits and future customer acquisition.• Designed Monte Carlo simulations in MATLAB to estimate the impact of pricing strategies on market share and long-term profit.• Explored the role of network effects in reducing piracy and maximizing profitability in emerging markets.	
<i>How Geographic Factors Affect Vehicle Types Demand?</i>	<i>Jan 2020 – May 2020</i>
<ul style="list-style-type: none">• Built and Estimated a discrete choice model to capture geographic effects on vehicle type demand across U.S. states.• Processed state-level data from Highway Statistics Series (1999-2018) using Stata.• Analyzed product-level aggregate data to infer individual vehicle choice behavior.	

CONFERENCE & PRESENTATION

- Chinese Economists Society (CES) 2024 North America Annual Conference *March 30-31, 2024*

AWARDS & ACTIVITIES

- Graduate Fellowship Award including full tuition waiver and stipend payments (Stony Brook University, 2021-present).
- Co-Organizer of Economics Research Group, Economics Department, Stony Brook University, Stony Brook, NY, U.S.
- Online Teaching Certificate (Center for Excellence in Learning and Teaching at Stony Brook University).
- Vice President, Student's Association Union, Northeast Petroleum University, Daqing, Heilongjiang, China

Xin Lu

Curriculum Vitae

Department of Economics
Stony Brook University
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EDUCATION

- Ph.D.** Department of Economics, Stony Brook University, Stony Brook, NY
2019 – Present
Advisor: Professor Steven Stern
- M.Econ.** Economics of Population, Resources and Environment, Wuhan University,
Wuhan, China
2015 – 2018
- B.Econ.** Finance, Wuhan University, Wuhan, China
2011 – 2015
- B.S.** Statistics (Dual Degree), Wuhan University, Wuhan, China
2012 – 2015
- Adv. Grad. Cert.** Data and Computational Science, Stony Brook University, Stony Brook, NY
2022 – 2024

WORKING PAPER

Education Cost and Study Effort in Family Decision-Making Process Considering Mental Health (JMP). **Xin Lu**.

Statistical Characteristics of K6 as an Explanatory Variable in the United States and China. Steven Stern, **Xin Lu**.

Prevalence of Mental Illness and Supply of Medicaid-Funded Services in New York State. Steven Stern, Hualong Diao, **Xin Lu**.

PUBLICATION

Mian Yang, **Xin Lu**, Hongbo Duan. *Analysis on the determinants and peaking paths of CO₂ emissions in China's high energy-consuming industries*. Systems Engineering, THEORY & PRAC-

TICE, 2018, Vol. 38, No. 10, pp. 2501–2511.

Mian Yang, **Xin Lu**, Fuxia Yang. *The influence of energy price distortion on Chinese energy efficiency*. Inquiry Into Economic Issues, 2017(11), pp. 134–140.

Xin Lu. *Connection between local debt and land finance from time dimension and regional dimension*. FINANCIAL SUPERVISION, 2014(22), pp. 77–73.

Xin Lu, Huazhang Wu. *Analysis of financing mechanism of urbanization*. ASSET AND FINANCE OF ADMINISTRATION INSTITUTION, 2014.

AWARDS & HONORS

The Third Prize Award, The 3rd Chinese College Student Competition on Energy Economics, 2017.

The First Prize Award, The 2nd Chinese College Student Competition on Energy Economics, 2016.

Merit Student, Wuhan University, 2014.

Second Prize Scholarship for Undergraduate, Wuhan University, 2014.

First Prize Award, Research Competition, Department of Strategic Management, Wuhan University, 2014.

Second Prize Award, Practice Competition in Summer, Wuhan University, 2013.

Elite Student, Wuhan University, 2013.

First Prize Scholarship for Undergraduate, Wuhan University, 2013.

TEACHING EXPERIENCE

Stony Brook University, Instructor of Record

ECO 360: Introduction to Econometrics (Summer 2026, Summer 2025)

Stony Brook University, Teaching Assistant

ECO 305: Intermediate Microeconomic Theory
(Spring 2025, Fall 2024, Spring 2024, Spring 2023, Fall 2022, Spring 2022, Fall 2021)

ECO 511 (Ph.D. level): Macroeconomic Theory II (Spring 2021)

ECO 510 (Ph.D. level): Macroeconomic Theory I (Fall 2020)

ECO 108: Introduction to Economics (Fall 2023, Spring 2020, Fall 2019)

Wuhan University, Economics and Management School

Teaching Assistant for Macroeconomics (Sept. 2016–Jan. 2017)

CONFERENCES

New York State Economics Association (NYSEA) Annual Meeting, paper presentation	2025
American Economic Association (AEA) Annual Meeting	2025
The BRIDGES Graduate Conference, poster presentation	2025
Chinese Economists Society (CES) North America Annual Conference, paper presentation	2024
Nebraska Labor Summit	2024

RESEARCH SKILLS

Statistical Techniques and Modeling: Dynamic structural models, dynamic programming, discrete choice models, panel data methods, causal inference, simulation-based estimation, maximum likelihood, Bayesian updating, data analysis with cross-sectional and panel data.

Programming: Stata, Python, R, MATLAB, STATA, L^AT_EX.

ADDITIONAL INFORMATION

Languages: English (fluent); Mandarin (native).

Certificates: CFA level 1

COMMITTEE MEMBERS

Steven Stern (Advisor)

Department of Economics

Stony Brook University

100 Nicolls Rd

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Sandro Brusco

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E-mail: sandro.brusco@stonybrook.edu

Mark Montgomery

Department of Economics

Stony Brook University

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E-mail: mark.montgomery@stonybrook.edu

Updated: October 2025

Siyuan LYU

CURRICULUM VITAE

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WEBSITE: <https://siyuanlyu.github.io/>

EDUCATION

2026 (Expected)	Ph.D. in ECONOMICS, Stony Brook University , New York Dissertation: <i>Essays on Innovation and Talents</i>
2020	M.A. in ECONOMICS, Shandong University , Jinan, China
2016	B.A. in ACCOUNTING, Southwestern University of Finance and Economics , Chengdu, China

RESEARCH INTEREST

Innovation, Applied Microeconomics, Development Economics

PUBLICATIONS

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1. Yi, Xing, Caiquan Bai, **Siyuan Lyu**, and Lu Dai. "The impacts of the COVID-19 pandemic on China's green bond market." *Finance Research Letters* 42 (2021): 101948.
 2. Hou, Linke, Pinghan Liang, and **Siyuan Lyu**. "Stay hungry, and stay calm in up-beat time: Local leaders' early-life famine experience and housing sector development in China." *Journal of Regional Science* 65, no. 2 (2025): 324-338.

WORKING PAPERS

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1. Knowledge: Burden or Gift of Innovation? (**Job Market Paper**)
(Presented at *2024 Game Theory Conference*, *2025 EEA*, *2025 CES* and *Shandong University*)
 2. Hard Problems: Young Math Talents in the U.S. and Their Choices of Higher Education
(Presented at *2025 ICEE PSU Altoona*, and scheduled at *2026 ASSA*)
 3. How does "Green Factory" Certification Influence Firms' Green Innovation Performances in China? (With Jiawei Chen, Jun Ma, and Kai Wei)

CONFERENCES AND TALKS

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- (Dates with a * indicate scheduled talks.)
- | | |
|-----------|-----------------------------------------------------------------------|
| 2026 Jan* | 2026 Allied Social Science Associations Annual Meeting, Philadelphia |
| 2025 Aug | 2025 International Conference on Empirical Economics (Online) |
| 2025 Mar | Chinese Economists Society North America Annual Conference, Ann Arbor |
| 2025 Feb | Eastern Economic Association Annual Conference, New York |
| 2024 Dec | Center for Economics Research, Shandong University |
| 2024 Dec | China Forum for Ph.D. students of Economics (Poster), Peking |
| 2024 July | 35th Game Theory Conference, Stony Brook |

TEACHING EXPERIENCE

Game Theory (Online)	2025 Summer
Intermediate Microeconomics	2024 Spring; 2024 Fall
Environmental and Natural Resource Economics (Online)	2024 Summer
Advanced Microeconomics (Graduate)	2018-19 (TA); 2021-22 (TA)

PROFESSIONAL ACTIVITIES

Referee:

Journal of Regional Sciences

Service:

2023 Administrator of 34th Game Theory Conference, Stony Brook

2022 Graduate assistant of 33rd Game Theory Conference, Stony Brook

HONORS AND AWARDS

2020 Tuition scholarship of Stony Brook University

2018 National Awards (top 3%), Shandong University

2013 National Awards (top 2%), Southwestern University of Finance and Economics

OTHER SKILLS

LANGUAGE: English (fluent); Mandarin (native)

SOFTWARE: Stata, Matlab, Python, L^AT_EX

REFERENCES

Mihai Manea (Main advisor)
Professor
Department of Economics
Stony Brook University
✉ mihai.manea@stonybrook.edu

Pradeep Dubey (Co-advisor)
Professor
Department of Economics
Stony Brook University
✉ pradeep.dubey@stonybrook.edu

Eran Shmaya
Professor
Department of Economics
Stony Brook University
✉ eran.shmaya@stonybrook.edu

Hanzhe Zhang (External committee)
Professor
Department of Economics
Michigan State University
✉ hanzhe@msu.edu

Ting Liu (Teaching referee)
Associate Professor
Department of Economics
Stony Brook University
✉ ting.liu@stonybrook.edu

Jiajun Tian

Phone: (+1) 631-880-8527
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43-22 Queens St
Queens, NY 11101

Education

Stony Brook University, Ph.D. in Economics (STEM), *Expected* May 2026

Advisors: Yiyi Zhou, Ting Liu, Mark R. Montgomery

The George Washington University, M.A. in Applied Economics, May 2020

Stony Brook University, B.S. in Applied Mathematics & Statistics, Dec 2018

Dean's List (Fall 2015, Fall 2016, Spring 2017, Spring 2018, Fall 2018)

Research Fields

Empirical Industrial Organization; Applied Game Theory; Applied Microeconomics

Projects

Promotion and Consumer Search in the Retail Market: An Empirical Analysis of the U.S. Pharmacy Industry *JMP: Work in Progress*

- Based on proprietary NielsenIQ scanner and household panel data, this paper analyzes how retailers strategically deploy promotions on private-label products to compete both against rival stores and third-party brands within the same store. It integrates a sequential search model with a BLP-style demand system to quantify effects on store traffic, profits, and consumer welfare, and conducts counterfactual simulations to assess equilibrium outcomes.

Mixed Bundling in Two-Sided Markets *Work in Progress*

- Using data on the video game console industry, this project builds a structural model to study how two-sided pricing and bundling affect platform market power, third-party incentives, and consumer surplus.

Cross-Category Demand Spillovers and Loss-Leader Promotions *Work in Progress*

- Using large-scale NielsenIQ data, this project models how discounts in one category affect basket-level sales across other categories, highlighting cross-category spillovers and loss-leader strategies in retail competition.

Teaching Experience

Stony Brook University, Stony Brook, NY

Aug 2025–Present

Undergrad Instructor, Department of Economics

- Taught *Introduction to Econometrics*; designed syllabus, lectures, and assessments; delivered all lectures and evaluated student performance.
- Integrated active-learning methods and econometric software (*Excel*, *R*) into lectures.

Stony Brook University, Stony Brook, NY

2020–2025

Teaching Assistant (Undergraduate Courses), Department of Economics

- Led recitations for *Intermediate Microeconomic Theory*, *Introduction to Economics*, *Mathematical statistics* and *Money & Banking*.

- Assisted with course material preparation, grading exams and assignments, and holding office hours.

Certifications & Skills

Wharton Business Analytics Specialization.

Software: MATLAB, R, Stata, Python, SQL, Excel, L^AT_EX.

Languages

English (Fluent), Mandarin (Native), Japanese (Basic)

Dissertation Committee / References

Prof. Yiyi Zhou

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Ph.D. in Economics

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TECHNICAL SKILLS

Programming & Tools: Python (Pandas, Numpy, SymPy, Matplotlib, Plotly), SQL, R, MATLAB, Stata, Excel, Fortran, AWS, LaTeX.

Econometrics Expertise: Causal inference (DID, IV, PSM, DML, event study, synthetic control), time series forecasting, survival analysis, Bayesian updating, structural modeling (pricing, discrete choice model, gradient-based optimization, Monte Carlo simulation), machine learning.

Data Management: Large-scale data processing, data cleaning, and visualization.

Languages: English (Fluent), Mandarin (Native), French (Beginner).

WORK EXPERIENCE

Amazon | *Economist Internship (inclined)*

June 2025 – September 2025

- Queried and merged large-scale datasets from Andes tables using SQL, and developed an L2-regularized logistic model with fixed effects to predict vendor acceptance probability for promotional pricing, leveraging millions of records on AWS SageMaker.
- Built a structural pricing model integrating estimated acceptance rates and cross-product substitution effects (from own-price elasticity inversion) to optimize category-level profitability. Counterfactual shows the model increases the deal OPS by 13.8%.
- Partnered with vendor managers to design experiments for deal events, using the structural model's outputs to inform deal price recommendations and validate profit impact.

Economics Department at Stony Brook University | *Instructor and Teaching Assistant*

September 2019 – Present

- Instructed over 70 students per semester in Econometrics, Labor Economics, and Corporate Finance, simplifying complex theories such as OLS, panel data models, causal inference, NPV, IRR, CAPM, and DCF through effective presentations and collaborative learning.
- Assisted in Ph.D.-level courses, including Mathematical Statistics and Econometrics, supporting advanced methods such as maximum likelihood estimation, IV, and discrete choice models, demand estimation and assisting with coding in Python, R, and Stata.

Academy of Development of Wuhan University | *Research Assistant*

October 2016 – June 2019

- Designed innovative data solutions using SAS and MATLAB, creating actionable insights from extensive datasets to guide regional innovation strategies. Drafted grant proposals, government reports, and contributed to academic publications in peer-reviewed journals.
- Collaborated on projects for the National Development and Reform Commission (NDRC), employing advanced analytical models (e.g., PCA, SE-DEA) to evaluate development efficiency.

RESEARCH PROJECTS

Financial Burden and College Human Capital Investment

September 2022 – Present

- Built a dynamic structural model in Python (utilizing maximum simulated likelihood estimation and parallel computing) to analyze the impact of student loan forgiveness policies on college major choices and human capital investment.
- Integrated NLSY97 and IPEDS data to simulate tuition costs and assess post-graduation employment outcomes, highlighting wage heterogeneity across majors.
- Presented at the Chinese Economists Society (CES) North America Annual Conference.

School Violence, Mental Health, and Academic Outcomes

February 2024 – January 2025

- Estimated the causal effect of bullying on academic performance via its impact on mental health, using a structural ensemble model combining Probit and ordered Probit in Stata with NSCH data, uncovering distinct effects between immigrant and native-born children.
- Presented at the 2025 ASSA Annual Meeting and the PEA Conference 2024.

Spousal Influence on Smoking Behavior

April 2023 – May 2024

- Estimated a simultaneous equation model with censored and instrumental variables in Python using PSID data, identifying strong spousal effects on smoking behavior and gender-specific patterns linked to physical and mental health factors.
- Presented at the Western Economic Association International (WEAI) 2024 and the ASHEcon 2024 Annual Conference.

Marriage, Gender, Race, Intergenerational Mobility

May 2020 – April 2021

- Developed improved household income adjustment methods and applied log-log and rank-rank models to evaluate marriage's moderating effect on income mobility across gender and racial groups.

Regional Innovation Ecosystem Health Assessment

September 2018 – August 2021

- Used principal components analytic method to construct a new evaluation index system evaluating the innovation ecosystem.
- Produced a government report and an academic paper, published in *Innovation and Development Policy*.

EDUCATION

Stony Brook University

Ph.D. in Economics (Advisors: Steven Stern, Mark Montgomery, Yiyi Zhou)

M.A. in Economics

Wuhan University

B.A. in Economics

Stony Brook, New York

Expected May 2026

May 2022

Wuhan, Hubei

April 2019

AWARDS & CERTIFICATES

Graduate Fellowship Award; Funding for Conference Presentations | *Stony Brook University*

CFA (Level I); Online Teaching Certificate