

Sara Ji

Contact Information

National Bureau of Economic Research
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Education

Massachusetts Institute of Technology, Cambridge, MA Aug-Dec 2022
Dynamic Structural Econometrics (DSE) Summer School in Market Design; Fall 2022
Class: Microeconomic Theory (Ph.D. level, audit)
Harvard University, Cambridge, MA June-Aug 2022
2022 Summer School
Class: Economics of Inequality (Graduate level); GPA: 4/4
Brandeis University, Waltham, MA Aug 2019-May 2021
Bachelor of Science in Applied Mathematics and Economics with high honors; minor in Philosophy; **GPA: 3.97/4**
Honors: *Summa Cum Laude*, Phi Beta Kappa, Dean's List (all semesters)
Thesis: Will program targeting underrepresented students lessen racial inequalities in test scores?
Evidence from a California school district
Relevant Course:
Econ: Econometrics, Game Theory, Economics of Education, Labor Economics, Public Sector Economics
Math: Real Analysis, Stochastic Processes (MATLAB - Simulations), Differential Equations
Southwestern University of Finance and Economics, Chengdu, China Sep 2017-July 2019
Honors: Innovation Scholarship (all semesters); Academic Scholarship (all semesters)
Relevant Course:
Econ: Microeconomic Theory, Macroeconomic Theory, Public Finance, International Economics
Math: Statistics, Probability Theory, Mathematical Analysis (Honors Multi-variable Calculus),
Advanced Algebra (Honors Linear Algebra), Optimization Theory

Research Interest

Applied Microeconomics (Economics of Education, Labor Economics, Crime); Econometrics; Game Theory
Broadly interested in topics related to inequality.

Research Experience

Research Scholar, National Bureau of Economic Research, Cambridge, MA Feb 2022-Present
• Supervisor: Professors Joshua Angrist and Elizabeth Setren
• Affiliated with MIT Blueprint Labs and Tufts University
• Intensive exact and fuzzy matching in Stata
• Generate detailed demographic information through geocoding
• Parse names from OCR (optical character recognition) in Python
• Run regressions including stacked diff-in-diff, synthetic control, instrumental variable regression
Research Assistant, National Bureau of Economic Research, Cambridge, MA Feb-July 2022
• Supervisor: Professors Gopi Shah Goda, Emilie Jackson, Lauren Nicholas and Sarah Stith
• Clean and merge population data from US Census and huge disability and retirement panel data from SSA (STATA)
• Run fixed effect regressions, generate event study figures (Stata) and create tables (Latex) for regression results

- Manage data, code and results (Github), and produce manuscripts that summarizes table and graph implications
- Research Associate**, Harvard Business School, Boston, MA July 2021-July 2022
- Supervisor: Professors Laura Alfaro and Claudia Steinwender
 - Clean, merge (Stata) and fuzzy-match (R) product level price panel data and huge firm level employment panel data
 - Run complicated regressions and conduct post-regression analyses in Stata
 - Creating tables (Latex) for regression results and graphs of event study design (Stata) for visualization
- Research Assistant**, Brandeis University, Waltham, MA June 2021-Dec 2021
- Supervisor: Professor Geoff Clarke
 - Encode hand-written cursive entry for daily ledgers of the St. Luke's Penny Savings Bank from 1903 to 1909
 - Generate a huge database by linking the names in the bank records to names in the Richmond city directories
 - Map the locations of linked African-American in Virginia over time using GIS
 - Create documentations for research procedures
- Independent Researcher** (Senior Thesis), Economics Department, Brandeis University Sep 2020-May 2021
- Advisor: Geoff Clarke, Nelson Sa, and Joshua Goodman
 - Research on problems in racial achievement gap and conducted literature review from different sources
 - Identify a quasi-experiment and created dataset for empirical analysis from CRDC and EdFacts databases
 - Build different models (OLS, fixed effects, synthetic control) and analyzed quantitative results in STATA
- Investment Research Assistant**, PingAn Fund, Shanghai, China May-July 2020
- Develop Python codes for attribution analysis on yield gap between indices and investment portfolio
 - Draft 4 research memos on new-energy automobile industry and 2 reviews on macroeconomic market
 - Publicize 9 copywriting of ETF Funds towards the public
- Research Assistant**, Brandeis University, Waltham, MA Apr-June 2020
- Supervisor: Professor Joshua Goodman
 - Gather data from Google Trends on weekly search volume for online learning terms by metro area
 - Collect and clean county level socioeconomic data from 4 datasets in the ACS database, generated new variables, created a crosswalk between counties and DMA, and merged a DMA level socioeconomic dataset using R
 - Conduct literature review on socioeconomic inequalities in online access and online learning

Participated Conference and Seminars (* presentation)

2022: Harvard Pre-Doc Seminar*; NBER Summer Institute; MIT DSE Market Design Conference

Teaching Experience

- Teaching Assistant** for Econometrics, Brandeis University, Waltham, MA Jan 2020-May 2021
- TA semesters: Spring 2020, Fall 2020, Spring 2021
 - Present important concepts on lecture materials and R coding to students during recitation every week
 - Assist students in weekly office hours with class materials and R, prepare review sessions before midterms and final
 - Create R tutorials for students as additional resources to learn R
 - Grade problem sets and empirical exercises (numerical assignments) and facilitate professor with proctoring

Research Skills

Programming and Statistical Analysis: STATA, R, Python, MATLAB, ArcGIS, Mathematica, VBA
 Manuscript Production: LaTeX (paper, bib, slides), Excel (producing tables in matrix), Microsoft Word, PowerPoint
 Project Management and Collaboration: GitHub, Dropbox, Box

Other Skills and Hobbies

Language: Mandarin (native); English (professional); French, Japanese, Korean (conversational); Spanish (beginner)
 Miscellaneous skills: Tennis, Swim, Piano, Caricature Sketch
 Hobbies: Read, Hike, Ski, Pet Dogs, Learn New Languages