

Zixuan Pan

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RESEARCH INTERESTS

Quantitative Social Science, Social Policy and Poverty, Computational Social Science and Policy Simulation, Survey Research and Longitudinal Data Analysis, Causal Inference and Policy Evaluation, Economic Inequality and Household Economic Security, Political Economy, Data Visualization

EDUCATION

COLUMBIA UNIVERSITY, GRADUATE SCHOOL OF ARTS AND SCIENCES

New York, NY

Master of Arts in Quantitative Methods in the Social Sciences (GPA: 3.86/4.00)

Sep 2023 – May 2024

Committee: Prof. Elena Krumova (Advisor) & Prof. Jingyan Yang

Thesis: Impact of Government Debt Management Policies on Firm-Level Real Estate Investment

- Relevant Courses: Theory and Methodology, Data Analysis, Advanced Analytic Techniques, Data Visualization, Social Network Analysis, Practicum in Large-Scale Data Analysis and Processing

UNIVERSITY OF CALIFORNIA, BERKELEY, COLLEGE OF LETTERS & SCIENCE

Berkeley, CA

Bachelor of Arts in Economics and Data Science, Minor in Journalism (GPA: 3.33/4.00) Degree Conferred: Dec 2022

- Relevant Courses: Microeconomics, Macroeconomics, Statistics, Econometrics, Computer Programming, Machine Learning, Simulation for Enterprise-Scale Systems

RESEARCH EXPERIENCE

International Computer Science Institute (ICSI), University of California, Berkeley

Berkeley, CA

Research Assistant

Jan 2025 – Present

Supervisor: Dr. Sebastian Benthall & Prof. Alan Juan

- Conduct quantitative research on household economic decision-making, consumer-credit regulation, and fairness, translating social-science questions into reproducible empirical and computational analyses.
- Develop and evaluate agent-based policy simulations of household borrowing, credit access, default risk, and regulatory interventions, including model specification, validation, and counterfactual analysis.
- Build reproducible Python research pipelines for model evaluation, visualization, structural dependency analysis, and automated testing.
- Conduct interdisciplinary literature reviews (economics, public policy, consumer finance, algorithmic fairness, causal inference); work with principal investigators to refine research questions, interpret findings, and prepare outputs for academic and policy-relevant projects.

Institute for Social and Economic Research and Policy (ISERP), Columbia University

New York, NY

Research Assistant, Communities Speak (New York City community survey)

Mar 2024 – May 2024

Supervisor: Prof. Ester R. Fuchs

- Analyzed survey data on New York City residents covering employment, education, unemployment insurance, and related economic and social outcomes across demographic and geographic groups.
- Developed and applied survey-weighting procedures in R to improve population representativeness across borough, race, and other demographic characteristics; performed data cleaning, variable construction, subgroup analysis, and statistical validation.
- Produced research tables, analytical summaries, and policy-relevant findings for faculty researchers and project deliverables, translating results into accessible insights on the economic conditions facing New Yorkers.

Graduate School of Journalism, University of California, Berkeley

Berkeley, CA

Independent Study Researcher

Jun 2022 – Dec 2022

Supervisor: Prof. David Thigpen

- Designed and executed an independent quantitative study of monetary policy, household finances, and consumer spending, analyzing 8,000+ observations in R and Python using regression and clustering methods.
- Presented findings in a written research report and interactive data visualizations for nontechnical audiences.

PROFESSIONAL & POLICY EXPERIENCE

Asia Foundation of Digital Economy

Singapore

Policy Research Assistant

Jun 2024 – Sep 2024

- Conducted policy research on digital-economy development, employment, and workforce transformation across Asian economies, evaluating labor-market and distributional implications of technological change and identifying policy responses.

- Synthesized economic data, policy documents, and academic research into analytical memos and policy reports for senior researchers and external stakeholders.
- Translated quantitative and qualitative evidence into clear, actionable findings for policy reports and internal research materials.

Mastercard

Shanghai, China

Data Analyst

Oct 2023 – Jan 2024

- Conducted market and consumer research using quantitative data on financial-product usage and consumer behavior; identified patterns in credit-card demand and user characteristics.
- Combined quantitative analysis with institutional and regulatory research to support locally tailored recommendations, communicated through reports and presentations to internal and client teams.

Ministry of Finance of the PRC, International Economics and Finance Institute

Beijing, China

International Financial and Economic Researcher

Aug 2023 – Oct 2023

- Conducted applied economic and policy research on major advanced and emerging economies (United States, European Union, Japan, BRICS); maintained and analyzed macroeconomic datasets on employment, inflation, growth, and fiscal conditions.
- Produced concise policy memos synthesizing quantitative evidence, institutional developments, and economic research for senior researchers and policymakers; monitored emerging developments and translated complex information into timely, decision-relevant findings.

PROFESSIONAL SKILLS & HONORS

- Awards: QMSS Research Assistantship (\$5,900), Merit Scholarship (\$25,000), UC Berkeley Transfer Scholarship (\$8,100)
- Technical: R (Proficient), Python (Proficient), Stata (Advanced), SQL (Advanced); reproducible research pipelines and automated testing
- Methods: Survey weighting and survey data analysis, panel and longitudinal data analysis, causal inference (difference-in-differences, event studies), regression and subgroup/heterogeneity analysis, simulation and agent-based modeling, machine learning, data visualization, large-scale data processing
- Language: English (Fluent), Mandarin (Native), Cantonese (Native)