Xiaoyi Tang

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EDUCATION

University of Chicago   Chicago, IL
Master of Arts in Economics (with $5000 scholarship), Division of the Social Sciences   *August 2024 - July 2025 (Expected)*

Minzu University of China   Beijing, China
School of Economics, Innovation Class for Top Talents in Economics (selected 35 people out of 500+ applicants)
Bachelor of Arts in Economics; GPA: 91.9/100 (WES:3.89/4)   *October 2020 - June 2024 (Expected)*

Relevant Courses: Intermediate Macroeconomics (95/100), Mathematical Economics (96/100), Econometrics (90/100), Linear Algebra (96/100), Probability and Mathematical Statistics (93/100), Dynamic Optimization (91/100), Intermediate Microeconomics, Statistics, Advanced Mathematics, Game Theory, Analysis of Economic Data (with Python), Regional Economics, Finance, Political Economics

Thesis: "The Effect of College Entrance Exam Acceptance Rate on Fertility Intentions"

University of California, Berkeley   Berkeley, CA
Visiting Student in Economics and Statistics; GPA: 3.89/4   *January 2022 - May 2022*

Relevant Courses: PhD course Industrial Organization (A), Development Economics (A), Concepts of Statistics (A-)

RESEARCH INTERESTS

Labor Economics, Development Economics, Applied Microeconomics

RESEARCH EXPERIENCE

- **Empirical Research on Labor Market**: Research Assistant   *January 2024 - Present*

  Advisor: Dr. C.Y. Kelvin Yuen, Assistant Professor of Economics (The Hong Kong University of Science and Technology)

  - Collected data and indicators of labor market such as unemployment rate and minimum wage, utilizing Stata to perform data cleaning and data visualization, using the wage-size premium method to estimate the labor supply elasticity in several countries
  - Assisted the professor in the computation and simulation of static and dynamic economic model
  - Audited in some advanced courses including *Advanced Macroeconomics* and *Advanced Optimization* at HKUST(GZ) and attended the research seminar every week

  Working Project:

  - Measuring involution using economic indicators, conducting regression analysis and comparative analysis among different countries
  - Building a general-equilibrium search and wage-posting framework with heterogeneous workers and tasks matching in labor markets

- **The Occupational "Sticky Trap" of Digital Labor under Algorithm Control**: Independent Research   *January 2022 - June 2023*

  Advisor: Dr. Jing Liu, Professor of Economics (Minzu University of China)

  - Conducted sampling design work by using the Probability-Proportional-to-Size Sampling method to select four districts from sixteen districts in Beijing and calculate the optimal sample size
  - Conducted 3-month field study and surveyed more than 200 individuals to know how digital labor feel about the "Sticky Trap" through questionnaires and in-depth interviews; analyzed the formation mechanism of "Sticky Trap" through qualitative research
  - Performed data cleaning and data analysis with Python & R, and used Structural Equation Model with R lavaan package to explore the relationship between variables
  - Operated Cronbach test by calculating α values and Exploratory Factor Analysis (EFA) by calculating KMO statistics and Bartlett significances with SPSS

- **Empirical Research on Chinese Economic and Social Data**: Research Assistant   *April 2022 - October 2022*

  Advisor: Dr. Zhaopeng Frank Qu, Associate Professor of Economics (Nanjing University)

  - Collected data and indicators of economic development such as GDP and Gini Coefficient and integrated databases, performing data cleaning with Python NumPy & Pandas (e.g.,outliers filtering, data imputation, categories reduction, dummy variables creation and data normalization), and conducted data analysis and visualization with Python Pandas & matplotlib and R maps & ggplot2
  - Developed a novel data processing framework for a recently released radiance dataset known as VNP46A2, part of NASA's Black Marble suite of Nightlight (NTL) products, utilizing QGIS, Matlab and Python to calculate zonal economic statistics over multiple rasters using VNP46A2 data
  - Attended research meeting with other research assistants and professor every week,and shared interesting papers and ideas occasionally

- **The Effect of News Recommendation on Consumer Behavior**: Research Assistant　　　　　　*March 2022 - June 2022*

  Researchers: Yixiang Xu & Mengyao Huang, PhD candidates (UC Berkeley Haas School of Business)

  - Performed web scraping (e.g., Misrosoft News, New York Times) on more than 60,000 English news articles to collect variables and indicators about consumer behavior with Python Pandas & Beautiful Soap
  - Used Propensity Score Matching and consumer clustering/classification algorithm with Random Forest in Python to explore whether by building up and using consumer side as a basis of a simulated online learning environment can enhance the performance of the recommendation system

TEACHING EXPERIENCE

Applied Econometrics (with Stata), Minzu University of China　　　　　　Beijing, China
Teaching Assistant for Dr. Yu Bai, Professor of Economics　　　　　　*September 2023 - January 2024*

- Helped the professor prepare for the course materials including Stata guidebooks & real-world data sets & Stata codes and grade assignments & exams
- Organized sessions for students to show how to apply various econometrics methods using Stata with real-world data
- Held office hours every two weeks to address some learning difficulties met by students

CONFERENCE

- **2023 Health and Aging Economics Summer Camp**: Organized by PKU-iGHD & Yale Institution for Social and Policy Studies　　*June 2023*

  - Presented my working paper *Formation Mechanism and Impact of the Digital Laborers' Occupational "Sticky Trap" under Algorithms: Evidence from a Social Survey for Meituan Take-out Riders*

PROFESSIONAL EXPERIENCE

GUANGFA Securities Co., Ltd　　　　　　Beijing, China
Equity Research Analyst　　　　　　*October 2023 - December 2023*

- Updated databases & annual reports using Microsoft Access and Power BI, followed market trends, and conducted in-depth analysis of TMT industry and enterprises to aid investment decision-making
- Performed corporate valuation for listed companies through Dividend Discount Model (DDM) and Discounted Cash Flow (DCF) model
- Analyzed financial time series in EViews, applying multivariate linear regression model and GARCH model to predict Hang Seng Index

Ipsos Consulting Company　　　　　　Beijing, China
Assistant Analyst in Quantitative Research Department　　　　　　*June 2022 - August 2022*

- Assisted mentor to conduct data analysis and wrote key findings (completed the processing of more than 8,000 observations of data), and used Microsoft Excel to conduct t-tests in A/B Testing
- Operated data visualization by making Pivot Table in Microsoft Excel and drawing bar charts and line charts in Microsoft PowerPoint
- Participated in the design of three medium-sized project questionnaires about consumer preferences, and removed unreasonable questionnaire results based on the screening requirements

HONORS AND ACADEMIC ACHIEVEMENTS

UChicago Gargoyle Research Scholarship (USD 5,000)	*February 2024*
Academic Distinction Scholarship at Minzu University of China (three times)	*2021-2023*
Special Prize Award in 2023 Academic Works Competition for College Students in Beijing (Top 0.5%)	*May 2023*
First Prize of the 10th MUC Undergraduate Essay Competition (Awarded to recognize students' academic potential)(Top 0.03%)	*March 2023*
Honorable Mention in the 2023 Interdisciplinary Contest In Modeling (ICM)	*February 2023*
Scholarship to Visit Top Universities in the World (RMB 65,500)	*May 2022*

SKILLS

- **Programming**: Advanced in Python (Pandas, NumPy, matplotlib), R (dplyr, ggplot2, lmtest, tidyverse), Stata; intermediate in MATLAB, QGIS
- **Tools**: SPSS, Latex, Markdown, Microsoft Office, Microsoft Access
- **Languages**: Mandarin Chinese (native), English (IELTS: 7.5, GRE: q170+v152+3.5), Cantonese (basic)
- **Interests**: Debate (MUC Outstanding Debater), Swimming, Guzheng (Chinese zither, 10th Grade-National Level), Social Psychology