

Yujie Fan

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EDUCATION

Nanyang Technological University

PhD in Economics:

Supervisor: Professor Wenjie Wang

Core courses: *Econometrics II* (A+), *Econometrics I* (A), *Seminar in Macroeconomics* (A), *Mathematical Economics and Microeconomics* (A), *Seminar in Microeconomics* (A-), *Qualitative Methods in Public Affairs* (A-)

Singapore

Aug 2024 – Aug 2028 (expected)

University of Cambridge

Mphil in Economics:

Core Courses: *Microeconomics*, *Macroeconomics*, *Econometric Methods*, *Public Economics*, *Economics of Networks*, *Development Economics*, *Applied Econometrics*.

Cambridge, United Kingdom

Sep 2023 – Jul 2024

The University of Nottingham, Ningbo (UNNC)

BSc (Hons) Economics: (GPA: 4.0/4.0; 72/100, *Graduate with 1st class Honors with Distinction*)

Dissertation Supervisor: Professor Zhuo Chen

Research Area: Applied Econometrics and Machine Learning, Applied Microeconomics

Core Courses: *Dissertation* (81), *Applied Econometrics* (80), *Microeconometrics methods* (80), *Econometrics* (71), *Macroeconomic theory* (76), *Macroeconomics* (75), *Mathematical Economics and Econometrics* (71), *Economic Integration* (70), *Business Finance* (74), *Health Economics* (78).

Ningbo, China

Sep 2019 – Jul 2023

RESEARCH EXPERIENCE

Health types and health dynamics identification

Project with Professor Wenjie Wang, Professor Akshar Saxena and Zhuoru Ma

Singapore

Nov 2024 - Present

Quantitative examination on discrimination in U.S. criminal law sentencing

Undergraduate Dissertation-supervised by Professor Zhuo Chen in UNNC

Ningbo, China

Sep 2022 - Apr 2023

- Conducted a comprehensive analysis to identify and quantify instances of discrimination within U.S. criminal law sentencing.
- Executed an extensive literature review focusing on racial and gender discrimination, as well as the modeling of discrimination within judicial sentencing processes, highlighting key theories, methodologies, and findings in the field.
- Preprocessed comprehensive datasets by imputing missing values and optimizing variable selection using the LASSO algorithm, enhancing the robustness and accuracy of subsequent analyses.

MATLAB programming for evaluation of econometrics model test through data simulation

Research Assistant-supervised by Professor Zhenjiang Lin in the School of Economics at UNNC

Ningbo, China

Jul 2022 - Aug 2022

- Familiarized with the econometric model building methodology and its relation to some assumptions of reference papers and designed MATLAB program to realize Monte Carlo Simulation.
- Visualized the output by MATLAB code by counting the times of rejections of hypothesis test from 5 different econometric models to compare their possibilities of conducting type I and type II errors.

Research on the negative spillover effect of importing conventional energy on R&D on clean energy

Research Assistant-supervised by Professor Jingong Huang in the School of Economics at UNNC

Ningbo, China

May 2022 - Aug 2022

- Collected 2000-2019 bilateral open access trade data by manual operation from B&P annual energy report for conventional and clean energy and R&D data on clean energy and organized them in Excel.
- Found supporting theory in the literature for non-symmetric data in bilateral intra-trade.
- Searched by keywords for related literature about the differentiated interest rates of banks on projects with different degrees of pollution.

Python program designed for data accessing purposes

Research Assistant- supervised by a PhD candidate in economics at UNNC

Ningbo, China

May - Jun 2022

- Wrote a Python program to realize the function of accessing and collecting the value of certain desired variables and in the yearbook data of hundreds of cities in 34 provinces in China in the time range of 1999-2018.
- Transformed format of files through programming with Visual Basic in Excel.
- Classified Excel documents according to certain criteria (e.g. year, provinces) through programming.

Research on prediction for financial crisis based on data from 14 developed countries

Research Team Leader-supervised by Professor Donald Robertson in the School of Economics at Cambridge

Ningbo, China

Feb - Jun 2022

- Took charge of the model building, regression output table visualization and model evaluation using STATA, which made clear the benefits of the linear probability model and its drawbacks.
- Arranged several discussions about the choice and transformation of the variable and data pre-processing.
- Made several personalized sub-sample models and evaluation graphs (e.g. ROC curves).

Research on the impacts of the new rural cooperative medical system on the Chinese rural elderly**Ningbo, China***Research Leader**Sep - Dec 2021*

- Applied STATA to analyze the relationship between Chinese rural elders' physical health, mental health, and participation in the New Rural Cooperative Medical System (NRCMS).
- Designed Mechanism Test to find the effect of NRCMS on the health of Chinese Rural elderly through body checkups.
- Organized weekly team meetings and led the discussion in the meetings.

Research on emotional phrases frequency-based prediction of stock prices**Ningbo, China***Research Assistant-supervised by a PhD candidate in the School of Business in UNNC**Jun - Nov 2021*

- Carried out word frequency count with the help of Python in over 1000 headings of corporate annual reports, which is based on the emotional dictionary from 'Tone, sentiment, and Market Impact: Based on a Dictionary of Financial Sentiment' (Yao, 2020).
- Took account of overall tone by using an evaluation emotion-adjusted frequency formula in to realize a more reliable index.

WORK EXPERIENCE**Summer School in Mathematical Economics & Financial Econometrics****Ningbo, China***Teaching assistant in spatial econometrics**Jun 2023*

- Familiarized the spatial econometric model building methodology and its instruction and application in STATA.
- Hold after-curriculum seminars and Q&A sessions to enhance understanding of knowledge taught.

Center for Health Economics (CHC): Data Science and Health Economics**Ningbo, China***Conference Volunteer**3rd-4th Jun 2023*

- Organizing conference souvenirs to each participant and coordinating layout of conference hall.
- Arranging Q&A sessions after each speech.

Nottingham Advantage Award Program - Introduction to Academic Research**Ningbo, China***Presenter of Own Research Project**Mar - May 2021*

- Used the reflective cycle to support personal reflection on the progress on any given academic task.
- Created a portfolio of written evidence (reflective narrative) based on the module work.
- Presented poster based on the research and engaged in the Q&A session.

Nottingham University Consulting Program: Helping Shared Electric Scooter Enter Campus**Ningbo, China***Group Associate Leader**Sep - Dec 2020*

- Assisted team leader in interviewing professors, collected information from investigations and analyzed data.
- Gave out final presentations to analyze the project from the perspective of feasibility, security and adaptability.
- Raised commercial awareness and procedure of how private companies should negotiate to start a business in college.

EXTRACURRICULAR ACTIVITIES**Tongji University****Ningbo, China**

2022 Summer School Program (Online)

July 2022

Courses Taken:

*Health Economics and Health Policy, Applied Statistics for Evidenced-Based Practice***Peking University****Nanjing, China**

Summer School Program (Online) (GPA: 84/100)

Jul - Aug 2020

Courses Taken:

The Analysis Methods of Social Survey Data

ADDITIONAL INFORMATION**IT Skills:** Python, R, MATLAB, STATA, Visual Basic.**IELTS:** Overall score: 7.5 (Reading: 8.5, Listening: 8.5, Writing: 6.5, Speaking: 6.0)**GRE:** 330 (Verbal:161, Quantitative:169, Analytical Writing: 3.5)**Performance:** UNNC X-show (December 2019, December 2020); UNNC Western Orchestra Musical Festival (Mar 2020)