SHEN Zekai

Education

Singapore Management University

Aug. 2023 - Aug. 2024

Master of Science in Economics (Econometrics and Quantitative Economics)

 \circ GPA: 4.0/4.0

• Award: Dean's List

Shanghai University

Aug, 2018 - Aug, 2022

Bachelor of Economics

• GPA: 87.28/100

• Award: Excellent Graduation Thesis

Research Interests

Political Economy, Environment Economics, Applied Microeconomics, Scientometrics, Deep Learning/ Machine Learning in Economics

Publications

o Economic Voting Behavior: The Peak-end Growth Rule (With Jin Yiyang, Dong Yuanyuan, Liu Yazhou), Economics & Politics 2024 ☑

Working Papers

- o Does a Political Carbon Emission Cycle in China exist? (With He He, John Boland)
- Attraction is all you need: The Impact of Eye-Catching Titles on Publication Success and Citation Rates in Economics

Work in Progress

o Cheat and Get Promoted: The Political GDP Manipulation Cycle in China

Research Experience

Full-Time Research Assistant

Singapore

Under Karsten Muller, NUS Business School, National University of Singapore

Aug, 2024 - Present

The Global Industrial Policy Race: Evidence from Export Credits

- Conducted data collection and analysis from OECD, BIS, and External Data Hub databases, identifying bilateral export credit data. Integrated this data with export credit records published by national exportimport banks and Chinese export credit information from the AidDataset.
- Utilized descriptive statistics and visualizations to map the structure of the global export credit market, assessing its role within industrial policy.
- Contributed to empirical modeling to examine the impact of the U.S. Export-Import Bank shutdown on global export credit market dynamics and evaluated the influence of geopolitical factors in shaping export credit policies.

The Global Macro Project

- Built a comprehensive global macroeconomic database spanning over 200 years, covering key macroeconomic indicators.
- Gathered data from diverse sources, including academic papers, yearbooks, and databases, converting and consolidating these into consistent long-term macroeconomic time series.

 Managed data processing across various sources, ensuring compatibility and accuracy for seamless integration into a unified dataset.

Part-Time Research Assistant

Singapore

Under Aljoscha Janssen, School of Economics, Singapore Management University May, 2024 - Aug, 2024

- Employed Python's Scrapy framework alongside the Wayback Machine to extract historical and current data on major pharmaceuticals, including pricing, dosage, and additional relevant information
- Developed and optimized scraping scripts to ensure comprehensive data retrieval, handling dynamic content and various data formats across pharmaceutical company websites.

Part-Time Research Assistant

Singapore

Under Xuan Zhang, School of Economics, Singapore Management University

Sep, 2023 - Jan, 2024

- Utilized Python's Selenium and Playwright libraries to scrape hospital rating information from various Chinese hospital website, performing data matching to reconcile discrepancies in hospital names across datasets.
- Conducted text analysis on judicial data from the China Judgments Online database to identify and extract
 cases involving medical corruption, compiling and quantifying instances to support research on healthcare
 integrity.

Working Experience

Co-founders

China/Singapore

AI SocioEconomic Frontier [MVP Stage]

May 2023 - Jul 2024

- Co-Founded a startup that uses AI to make social science research simpler.
- Project lead on drafting initial code and developing AI software for social science research writing base on Large Language Models such as ChatGPT.
- Assisted in building the backend infrastructure and developing demos
- o Engaged with VCs and created the Business Plan and Pitch
- o Selected into Business Innvoations Generator (BIG) Incubator, Singapore Management University, 2024
- o Enter the interview round in MiraclePlus Accelerator / Zhen Found
- KWANPEN Postgraduate Summer Venture Awards, Singapore Management University, 2024

Teaching Assistant

Shanghai, China

School of Economics, Shanghai University

Aug 2022 - Jul 2023

o Teaching Assistant in Master of Finance Programme, 2022

Awards

o Dean's List, Academic Year 2023-2024, School of Economics, Singapore Management University	2024
\circ KWANPEN Postgraduate Summer Venture Awards, Singapore Management University	2024
\circ Honorable Mentions in Generative your AI Library Hackathon, Singapore Management University	2023
\circ Third prize in the First National Large Language Model Innovation and Creative Application Comp in China	petition 2023
o Excellent Graduation Thesis, Shanghai University	2023
\circ First Prize of the 3rd Undergraduate Academic Forum of SHU, Shanghai University	2021

Computational skills

Python

• Web Scraping: Playwright; Requests

• Data Processing: Pandas/Numpy/Matplotlib

o Regression Analysis: Statsmodels/Linearmodels

 $\circ\,$ Machine Learning: Scikit-learn/Xgboost/Lightgbm

- $\circ\,$ Demo: Streamlit/Gradio
- $\circ\,$ AI/Deep Learning: PyTorch/Langchain/Transformers/Wandb
- $\circ\,$ Web Developing: Flask

Stata/R

- $\circ \ \ OLS/GLS/Logit/Probit$
- o IV/FE
- $\circ\,$ DID/Synthetic Control Method

NLP

- Finetuning PLM: Roberta/Bert/T5/GPT2Finetuning LLM: Lora/PPO tuning LLAMA
- $\circ\,$ RAG: Langchain

${\bf LaTex/Overleaf}$

Javascript

Language Skills

- IELTS: Listening: 8.0; Reading: 7.5; Writing: 7.0; Speaking: 6.0
- \circ $\,$ GRE: Verbal: 158; Quant: 167