XUYUAN ZHANG

(734)-489-4829 • zxuyuan@umich.edu • linkedin.com/in/xuyuan-zhang-bb424028b/ • github.com/sergiozxy

EDUCATION

Master of Applied Economics   Graduation time: Dec. 2024 (expected)
University of Michigan, Ann Arbor: College of Literature, Science, and the Arts   3.97/4.0 current GPA

Bachelor of Economics   Graduation time: June. 2023
Sichuan University: Wu Yuzhang Honors College; Merit Scholarship (1.25%) 2020&2021   3.58/4.0 GPA

TECHNICAL SKILLS

Data Analysis and Statistics: Python, R, C++, Stata, Matlab, SQL, Julia
Spatial Statistics Tools: ArcGis, QGis, Geoda
Other Tools: Latex, Markdown, Vim, Linux, Microsoft Office, Photoshop

PUBLICATIONS

- Liu, P., **Zhang, X.**, Deng, G., & Guo, W. (Co-First Author) (2024). Sociodemographic factors impacting the spatial distribution of private dental clinics in major cities of People's Republic of China. *International Dental Journal*. https://doi.org/10.1016/j.identj.2024.03.009

- Chen, H., & **Zhang, X.**. (Corresponding Author). (2022). Joint effect of high-speed rail and air pollution on tourism in nearby cities. In Proceedings of the 2022 7th International Conference on Financial Innovation and Economic Development (ICFIED 2022) (pp. 341-349).

RESEARCH IN PROGRESS

Zhang, X. & Guoying, D. Evaluating the Impact of Offline Store Clusters in the Age of Platforms: Evidence from China's Metropolitan Real Estate Market (Research in Progress)

RESEARCH PROJECTS

Evaluating the Impact of Offline Store Clusters in the Age of Platforms: Evidence from China's Metropolitan Real Estate Market   Jan. 2023 – Continue
Undergraduate Dissertation
- Extracted second-hand housing transaction records of ten major Chinese cities from Lianjia using Python
- Clustered data by community level and used a regression discontinuity design to determine impact radius
- Merged community level data with POI extracted from AutoNavi Map and extracted other confounding factors from various remote sensing data, including GDP, nighttime lights and population density
- Implemneted difference-in-difference model to estimate impact of real estate brokerage's entry into segmented market and the platformization's effect on the transaction income, price concession and number of home tours
- Working on the Manuscript entitled *Evaluating the Impact of Offline Store Clusters in the Age of Platforms: Evidence from China's Metropolitan Real Estate Market*

Sociodemographic factors impacting the spatial distribution of private dental clinics in major cities of People's Republic of China   Nov. 2021 – Oct. 2022
A project held by College Students' innovation and Entrepreneurship Competition
- Extracted POIs of major cities in China from Auto Navi Map using Python and Constructed $1km \times 1km$ study zone
- Calculated Moran's I index and Utilized spatial econometrics models to identify influencing factors using Python
- Completed the Manuscript entitled *Sociodemographic factors impacting the spatial distribution of private dental clinics in major cities of People's Republic of China* and published in *International Dental Journal*

Research on the Characteristics of Inter-city Change of Population Mobility and the Differentiated Development of the Real Estate Market in Sichuan Province   Apr. 2021 – Sep. 2021
A Project held by the Sichuan Provincial Bureau of Statistics
- Quantified impact of population mobility on spatial differentiation of real estate market using county level Census Bureau Data
- Used GIS software to map population flow in Sichuan Province; Analyzed causal inference of population flow and real estate market in Sichuan Province using fixed effect model and spatial econometrics model

INTERNSHIP EXPERIENCE

Investment Banking XI Department, Haitong Securities Co. Ltd., : Intern at Investment Department   May. 2023 – Sep. 2023
- Participated in the IPO project of the Science and Technology Board (STB), with complete experience in due diligence and counseling, preparation of filing documents, and issuance review stage
- Carried out walk-through testing, procurement testing, cut-off testing, and financial statement preparation

Jianfa Real Estate Group Chengdu Co. Ltd., : Intern at Investment Department   June. 2022 – Sep. 2022
- Conducted market research, project mapping, complete departmental market information collection (GIS)
- Assisted in completing proposal follow-up and investment calculation for project in Dayuan Block of Hi-Tech Zone in land supply in Chengdu City (Microsoft Office)

OTHER EXPERIENCE

Sichuan University, : Teaching Assistant   June. 2021 – July. 2021
- Course name: Real Estate Investment and Finance
- Checked students' homework and Assisted with Instructor Chongyu Wang and professor Guoying Deng's teaching work and helped professor arrange group meetings, etc.
- Tutored 60 undergraduate in a condensed-format course about financial modelling and real estate financial models

Advanced Investment, An Online Project-Based Course, Advised by: Professor Alexei Chekhlov, Columbia University: Oct. 2021 -– Dec. 2021
- Calculated Efficient Frontier, Markowitz portfolio selection; Index Model using Python and Excel
- Established a theoretical model considering risk aversion and utility function, allocation between risky and riskless assets, and optimal allocation into risky assets

Econometrics, An Online Project-Based Course, Advised by: Professor Debopam Bhattacharya, Cambridge University: Apr. 2021 – Jun. 2021
- Analyzed econometric models, causal inference and conducted quasi-natural experiment;
- Presented and published the paper entitled *Joint Effect of High-speed Rail and Air Pollution on Tourism in Nearby Cities: Example of Hu-Ning-Hang Area*

ACTIVITIES

Weighted Leiden algorithm for modeling Alu-mediated enhancer-promoter interaction networks   Sep. 2023 – Dec. 2023
BIOSTAT 615 Rcpp based final project, 2023 Fall
- Implemented revised Leiden algorithm using Cpp from scratch and made R package.
- Matched HIC-pairing data with Alu sequence and ATAC sequences and carried out clustering analysis using revised Leiden algorithm. Github Repository: https://github.com/babessell1/AluNet

Spatial Analysis of Urbanization Impact on Water Quality   Jan. 2024 – May. 2024
EAS 644 based final project, 2024 Winter
- Cleaned sediment monitoring stations from USGS in Michigan and used Python API to extract remote sensing files from Sentinel-2 data with a 5 mile buffer from these monitoring stations.
- Used pre-trained Sentinel-2 remote sensing deep learning model to classify land cover in 10-day period remote sensing data and used regression analysis to determine the impact factor that influence the water sediment.
- Code available in https://github.com/sergiozxy/Urban-Effect-Of-Water-Sediment

Research on urban rural development   Feb. 2021 – May. 2021
A funded project by the Department of Economics, Sichuan University, worked as vice team leader.
- Carried out on-site investigation at Gebu Village, Sijue Town to collect information and drafted investigation report and planning proposal

- **GRE**: 169Q, 153V, 4.0W

- **TOFEL**: 30R, 25L, 21S, 27W