# Jiangwei Liu

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#### **EDUCATION**

## • Renmin University of China

September 2021 - present

B.E. in Big Data Technology & B.A. in Agricultural Economics

GPA: 3.67

Courses: C++ Programming(A), Advanced Algebra, Principles and Techniques of Data Science, Development Economics, Environmental & Resource Economics

#### • University of California, Berkeley

July 2023 - August 2023

**Berkeley Summer Sessions** 

Courses: Introduction to Finance, Academic Writing

#### RESEARCH EXPERIENCE

## • Impact of Urban Road Expansion on Air Pollution in Chinese Cities

Undergraduate Research Assistant, Renmin University of China

June 2023 - present

- Collected road traffic and economic data across 39 Chinese cities.
- Constructed instrumental variables with **Mahalanobis distance matching** strategy.
- Employed regression analysis with IVs and explored various heterogeneities in the impact.

## • Relationship between PM<sub>2.5</sub> and Housing Price and its Spatial Heterogeneity in Beijing

Undergraduate Research Assistant, Renmin University of China

August 2022 - September 2023

- Collaborated with Prof. H. Allen Klaiber (Graduate Studies Chair, Ohio State University) and Assoc. Prof. Wei Chen (Renmin University of China)
- Used Python to clean a dataset of 600k+ Beijing housing transactions spanning 120 months and 5,128 communities.
- Leveraged **ArcGIS** to merge geocoded residential coordinates with high-resolution PM $_{2.5}$  satellite data and subway station locations.
- Applied a hedonic model with **Stata**, finding a 0.0531% housing price drop per 1  $\mu$ g/m³ PM<sub>2.5</sub> increase, and analysed spatial heterogeneity in air quality's economic impact.

## • Impact of Agricultural Enterprise-Household Collaboration on Enterprise Performance

Research Assistant, Ministry of Agriculture and Rural Affairs of China January 2022 - March 2022

- Cleaned a dataset covering 1,733 agricultural enterprises across 13 years, calculating performance indicators like ROI and ROA.
- Catalogued the cooperation methods between enterprises and local farmers, merging this data into the primary dataset.
- Conducted regression analysis using multinomial probit model, computing the marginal effects of independent variables.

#### **CONFERENCES AND PRESENTATIONS**

• "The General and Spatially Differentiated Effects of Air Pollution on Housing Prices: A Large-sample Hedonic Analysis in Beijing." North American Regional Science Conference. San Diego, California, United States. 2023.

#### TECHNICAL SKILLS

**Programming:** Python, C/C++, SQL, Java, Html, JavaScript

Statistical analysis: Stata, R Studio, Matlab, Spss

**Spatial econometrics:** ArcGIS, GeoDa **AI/ML:** PyTorch, CNN, LSTM, ChatGPT

Scientific writing and plotting: LaTeX, Visio, Origin