MIKE (JIAFANG) HUANG

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EDUCATION

Cornell University
Ph.D. Applied Economics and Management *Expected Dec 2024*

- Dissertation Committee: Ivan Rudik (chair), Nicholas J. Sanders, Wendong Zhang
- Research Interests: environmental economics, climate change, natural disasters, sea level rise, real estate

University of Illinois at Urbana-Champaign
B.A. Economics, B.S. Statistics *May 2019*

PUBLICATION

"A Thousand Cuts: Cumulative Lead Exposure Reduces Academic Achievement", with Alex Hollingsworth, Nicholas J. Sanders, and Ivan Rudik (Forthcoming), *Journal of Human Resources*.

- **Media Coverage**: The 74, Tradeoffs, The Hill, Econofact, The Guardian

WORKING PAPERS

"Flood Risk Information and Real Estate Investors' Behavior: Evidence from New York City", Job Market Paper

Abstract: I examine the impact of Hurricane Sandy and the role of expectations about flood risk on residential and commercial real estate markets in New York City. Using a repeat sales framework, I estimate how Sandy affected housing prices differently across properties depending on their pre-Sandy floodplain status. I find that flooded residential properties within a floodplain experienced price declines of 7%. In contrast, residential properties flooded outside a floodplain experienced declines that were 4 percentage points greater. This disparity is even more significant for commercial properties, where the impact of Sandy on properties outside a floodplain is more than double compared to those within the floodplain. These price declines are enduring, with prices not returning to pre-flood levels even ten years later. I analyze several potential determinants of this heterogeneous effect and find that locations outside a floodplain experienced higher damage levels, had lower flood insurance take-up rates, and had increased out-migration of financially well-off individuals. A back-of-the envelope calculation suggests that if all flooded properties been previously assigned floodplain status, property value losses from Sandy may have been $220 million lower.

WORK IN PROGRESS

"After the Storm Surge: Hurricanes, Local Crime Rate and Federal Disaster Relief"

Abstract: Hurricanes are the costliest natural disasters in the United States, causing significant direct economic losses and substantial negative externalities. This paper estimates the impact of hurricanes on a frequently overlooked social issue: local crime rates. The findings reveal that hurricanes increase larceny or stolen property crime by 7.2%, burglary by 9.9%, robbery by 19.6%, and overall property crime by 6.7%, resulting in an average social cost of $27,960 per county. Additionally, the increase in crime is more prevalent in areas with lower socioeconomic status and higher heterogeneity. The study also evaluates the efficiency and effectiveness of current federal assistance programs and estimates the benefits of mitigation project investments.

PROFESSIONAL EXPERIENCES

Syngenta *May 2024-Aug 2024*
Data Science Intern

- Implemented convolutional neural networks to impute missing genotype data, achieving 86% accuracy—a 5-13% gain over KNN and random forest, boosting downstream prediction accuracy by 10%.

- Developed a one-click automated pipeline from scratch with parallel computing for data pre-processing and machine learning model implementation, resulting in a 50% reduction in output production time.

- Performed an in-depth literature review of cutting-edge methodologies for phenotype forecasting and presented findings and potential solutions through written reports and oral presentations.

Bunge *Jun 2023-Aug 2023*

Data Science Intern

- Collected over 100 million rows of weather data and performed supvervised machine learning techniques to enhance crop yield predictions by evaluating the precision of long-term weather forecasts.

- Converted high-dimensional data into insightful visualizations while implementing automation to streamline the generation of spatial and temporal patterns.

OTHER RESEARCH EXPERIENCE

Graduate Research Assistant, Prof. Ivan Rudik *Dec 2019-Aug 2022*
Graduate Research Assistant, Prof. Todd Gerarden *Sep 2022-Nov 2022*

TEACHING EXPERIENCES

AEM 4150, Price Analysis *Fall 2019*
AEM 4940, Economics of Vice and Corruption *Spring 2020*
AEM 6325, Leadership and Management in Sports (Graduate) *Fall 2022*
AEM 4510, Environmental Economics *Spring 2023*
AEM 2500, Environmental and Resource Economics *Fall 2023*
AEM 6940, Introduction to Machine Learning (Graduate) *Spring 2024*

AWARDS

George F. Warren Award for outstanding paper (2 out of 50+ Ph.D. students) *Apr.2023*
Edward and Janet Heslop Fellowship *May 2022*

LANGUAGE AND SKILLS

Softwares: R, Python, Julia, LaTeX
Language: Chinese (native), English (fluent), French (classroom)
Citizenship: Chinese

REFERENCES

Ivan Rudik (chair)
Associate Professor
Charles H. Dyson School of Applied Economics and Management
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