

Forrest Hangen

Computational Social Scientist · PhD

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Experience

PhD Researcher Boston, MA/Remote
Northeastern University Sept 2019 - Present

- Led innovative housing research using data science to reshape understanding of rental housing inequities.
- Pioneered novel computational method to create property ownership networks and reveal consolidation.
- Modeled landlord management strategies to identify key factors driving property neglect and evictions.
- Analyzed >1 million web-scraped rental listings to uncover systemic discrimination in housing markets.
- Redefined measurement of housing affordability using Explainable AI (XAI), more accurately identifying vulnerable households.
- Founded Computational Science Discussion Group.
- National Science Foundation Graduate Research Fellow

Graduate Research Associate Boston, MA/Remote
Boston Area Research Initiative Sept 2019 - Present

- Delivered data-driven improvements for multiple housing and city programs.
- Collaborated with interdisciplinary research team and key members of Boston city gov't.
- Developed data processing pipelines to publicly curate large-scale administrative data (e.g., 311 reports).
- Mentored junior team members through complex data processing and research methods.

Instructor – Big Data for Cities Online
Northeastern University Spring 2023

- Taught graduate-level course on urban data science.

Python Programming Instructor Livonia, NY
Makacademy - Makerspace 2018-2019

Projects

Online Discrimination Against Housing Choice Voucher Holders

- Created new dataset to curb illegal discrimination.
- Built a Python webscraper to collect >1 million Craigslist rental listings.
- Discovered strategic factors leading to discrimination using text analysis and multilevel models, offering new policy implications.

Linking Corporate and Property Data to Uncover Ownership Obscurity

- Solved key data issue in field of housing research.
- Pioneered a new fuzzy-matching algorithm to connect corporate and property records.
- Revealed significant consolidation post-2008 crisis.

Summary

Computational social scientist with 7+ years of research experience in urban data science, public policy, and human behavior. I thrive on diving into data to reveal insights and craft compelling stories.

Education

Northeastern University
PhD in Public Policy 2024
Master of Public Policy (MPP) 2021

University of Rochester
BA in Psych (Honors) & Russian 2019

Communication

Talks: 13 Total: 2 Invited Talks, 11 Conference Presentations
2023: Studying Housing Inequities with Big Data @Harvard Kennedy School

Publications: 14 Total: 13 Journal Articles, 1 Public Report
2024: Linking Landlords to Uncover Ownership Obscurity

Code & Data: 2 Datasets, 1 Tool

Media Coverage: GBH News, News @ Northeastern, WCVB - 5 Investigates, UofR News Center

Skills & Interests

Programming & Tools: Python R
SQL SPSS Stata ArcGIS QGIS

Data Science: Statistics
Network Science Machine Learning
Computational Modeling Text Mining
Data Ethics

Languages: Russian - Proficient
Ukrainian - Elementary

Outside of Work: Reading sci-fi
Running (I get "Run Forrest Run!" a lot)
Electronics (Microcontrollers)
WebDev (wrote my site from scratch)