

# Fangzhou Xie, Ph.D. Candidate

## Links

[Google Scholar](#), [Github](#), and [Personal Website](#).

## Education

Ph.D., Economics	Rutgers University	2020 — 2027 (expected)
M.A., Economics	New York University	2018 — 2020
Visiting student	University of California, San Diego	2015 — 2016
B.S., Economics	Capital University of Economics and Business	2013 — 2017

## Professional Services

Associate Editor	Software Impacts	2026 —
Associate Editor	Journal of Open Source Software	2026 —

## Research Interests

Econometrics with Machine Learning, Optimal Transport, Natural Language Processing (NLP).

## Publications

Olfson, M., **Xie, F.**, Bushnell, G., Hua, J., Miles, J., & Crystal, S. (2025). Antipsychotic Medication Use by Older Adults. *JAMA Psychiatry*.

Crystal, S., **Xie, F.**, Samples, H., Campbell, A., Treitler, P., Stone, E. M., Gupta, S., Simon, K. I., & Miles, J. (2025). States With Substantial Increases In Buprenorphine Uptake Did So With Increased Medicaid Prescribing, 2018-24. *Health Affairs*, 44(9), 1102-1111.

Stone, E. M., **Xie, F.**, Miles, J., Samples, H., Olfson, M., & Crystal, S. (2025). Buprenorphine Dispensation After X-Waiver Elimination by Clinician Specialty. *American Journal of Preventive Medicine*, 69(5), 108055.

**Xie, F.** (2025). Deriving the Gradients of Some Popular Optimal Transport Algorithms. *arXiv*.

**Xie, F.** (2022). rethnicity: An R package for predicting ethnicity from names. *SoftwareX*, 17, 100965. [Link](#).

**Xie, F.** (2020). Wasserstein Index Generation Model: Automatic generation of time-series index with application to Economic Policy Uncertainty. *Economics Letters*, 186, 108874. [Link](#).

## Conference Proceedings

**Xie, F.** (2020). Pruned Wasserstein Index Generation Model and *wigpy* Package. *CARMA 2020*. [PyPI](#).

*An extension to WIG model that will deal with large corpus. Lasso was used to shrink the dimension of vocabulary, so that it could be easier to calculate the Optimal-Transport distance matrix.*

## Peer-Reviewed Conference Presentation

- 3rd Workshop on Mechanism Design for Social Good (MD4SG '19) at ACM Conference on Economics and Computation (EC '19), June 2019.

## Invited Talks

- Symposium on Gender and Race Attribution organized by United States Patent and Trademark Office (USPTO), Aug 26, 2022

Presented my work: *rethnicity: An R package for predicting ethnicity from names*.

## Referee Services

Economics Letters, Machine Learning with Applications, Journal of Open Source Software, Transactions on Machine Learning Research

## Languages and Skills

Natural Languages: English (fluent), Mandarin Chinese (native), German (intermediate).

Operating Systems: macOS and Linux (Ubuntu + Fedora).

Programming Languages: R, Python, Julia, L<sup>A</sup>T<sub>E</sub>X, C++, SQL (SQLite), Bash (basic).

Skills:

Data Analysis: Tidyverse, Tidymodels, NumPy, Pandas

Web Interacting: BeautifulSoup, Selenium, rvest, curl (R)

General Machine Learning: PyTorch, Keras

Natural Language Processing: AllenNLP, Spacy, Transformers

Database Management: sqlite3, SQLAlchemy, RSQLite, DBI

Typesetting: L<sup>A</sup>T<sub>E</sub>X, Rmarkdown, Markdown

Performance: Rcpp, RcppThread, C++

Optimization: nlopt (C++), alglib (C++)

## Teaching and Research Experience

- RA (Rutgers) Center for Health Services Research (CHSR) at Rutgers IFH.
- Instructor (Rutgers) for Econometrics (Undergraduate), 2023.
- TA (Rutgers) for Econometrics (Undergraduate), 2021—2025.
- TA (Rutgers) for Intro to Macro and Money Banking Finance (Undergraduate).
- TA (NYU) for Professor Sahar Parsa, Econ-UA 266: Intro to Econometrics.
- RA (NYU) for Professor Sahar Parsa, 2020.

## Awards

Excellence Fellowship, Department of Economics, Rutgers University, 2020–2025.

Travel Fund (\$860), 3rd Workshop on Mechanism Design for Social Good and Department of Computer Science, Cornell University, 2019.

Travel Fund (\$180), Department of Economics, New York University, 2019.

Travel Fund (\$1100), Department of Economics, Cornell University, 2017.

Full Scholarship for “Foreign Exchange Program”, UCSD, Beijing Municipal Government, 2015–2016.