

ABDOLLAH FARHOODI

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EMPLOYMENT

University of Toronto

Assistant Professor, Department of Economics

2020—present

EDUCATION

University of Illinois at Urbana-Champaign

Ph.D. Economics, Advisor: Dan Bernhardt

2014—2020

Sharif University of Technology

M.Sc. Economics

2012

University of Tehran

B.Sc. Electrical Engineering (Control)

2009

SUMMARY

I am an applied economist specializing in industrial organization, digital economics, and the spatial distribution of economic activities. My research involves using big-data tools, structural estimation, and machine learning techniques to address economic questions.

SOFTWARE AND COMPUTER SKILLS

Programming: R, Python, MATLAB, STATA, Mathematica, HTML

Big-Data Tools: SQL, MongoDB, Hadoop, Spark, Tensorflow

Causal ML: Doubly Robust ML, Elastic-Net Synthetic Control, Generalized Random Forest, Deep-IV, EconML, DoubleML

Machine Learning: Shrinkage Methods, Random Forest, Bagging, Boosting, XGBoost, SVM, Neural Networks

Econometrics: A/B Testing and Randomized Controlled Trials, Difference-in-Difference, Heterogeneous Treatment Effect, Instrumental Variable, Propensity Score Matching, Synthetic Control, Structural Estimation, Discrete Choice Models, Maximum Simulated Likelihood, Method of Simulated Moments

Other: GitHub, Microsoft Office, Visual Studio Code, L^AT_EX, Satellite Data, GIS, Web-scraping, Textual Analysis

WORKING PAPERS

Democratizing the Opportunities: Who Benefits from the Airbnb Market?

- Developing a novel discrete choice model to account for heterogeneities in Airbnb
- Estimating a structural model to find consumer and producer surpluses with daily variations
- Simulating an agent-based model of the Airbnb market to study the causal effects of different regulation policies

Does Airbnb Reduce Matching Frictions in the Housing Market? (with Nazanin Khazra and Peter Christensen)

- Introducing reduction in matching frictions as a new mechanism through which peer-to-peer markets affect the related markets
- Calibrating our search and matching model using Airbnb and housing data for the entire US
- Applying causal machine learning to study the heterogeneity in the effect of Airbnb on the housing market

Households Mobility and Housing Affordability: Evidence from the Universe of Households' Migration in the US (with Nathaniel Baum-Snow and Lu Han)

- Using the big data on the last 10 movements of all American households (~3 Billion observations)
- Developing a dynamic discrete choice model of households' location choices
- Developing a new technique to estimate the neighborhood-level moving costs of renters and owners
- Running the counter-factual analysis of changes in moving costs and housing supply policies

Introducing a Micro-Founded Index of Consumption Welfare: A Big Data Approach

- Applying machine learning to introduce a novel index of welfare based on households' asset ownership
- Using the household-level micro-data to evaluate the index

RELEVANT EXPERIENCE

International Monetary Fund

- Fund Internship Program (Statistics Department) *Summer 2018*
- Working on the living standard measurement survey micro-data

University of Illinois

- Big-Data in Environmental Economics and Policy Research Group *2018—2020*
 - Collaborating with the National Center for Supercomputing Applications
 - Working with a large interdisciplinary research team
- Graduate Research Assistant *2015—2018*

TEACHING & LEADERSHIP EXPERIENCE

Urban Economics *University of Toronto, 2021—2024*

Big Data Tools and Applied Machine Learning for Economists *University of Oxford, 2023*

- University of Toronto summer program hosted by the University of Oxford

Big Data Tools for Economists *University of Toronto, 2020*

- Topics: Coding with Python, Git, Data Visualization, Geo-coding and Mapping, Satellite Data, Web-scraping, Textual Analysis, Machine Learning

Introduction to Microeconomics *University of Toronto, 2020—2023*

- Leading more than 1800 students & 30 Teaching Assistants

Applied Machine Learning in Economics *University of Illinois, 2019—2020*

- Topics: Statistical Learning with R, Shrinkage Methods, Random Forest, Bagging, Boosting, SVM, Neural Networks, Causal Inference with ML
- Outstanding rating (top 5 percent) in the “List of Teachers Ranked as Excellent by Their Students”

Teaching Assistant:

- Introduction to Microeconomics University of Illinois, 2016—2018
- Intermediate Microeconomics University of Illinois, 2014—2015
- Game Theory Sharif University of Technology, 2012
- Econometrics I Sharif University of Technology, 2010, 2011
- Microeconomics II Sharif University of Technology, 2010

REFEREED CONFERENCE PRESENTATIONS

- 58th Canadian Economic Association Conference, 13th European Meeting of the Urban Economics Association 2024
- 17th North American Meeting of the Urban Economics Association 2023
- The American Real Estate and Urban Economics Association-ASSA, Canadian Conference in Real Estate and Urban Economics 2022
- 15th North American Meeting of the Urban Economics Association, The American Real Estate and Urban Economics Association-National 2021

FELLOWSHIP AND AWARDS

- Robert Willis Harbeson Memorial Dissertation Award May 2019
- University of Illinois Summer Research Fellowship Summer 2018
- University of Illinois Summer Research Fellowship Summer 2015
- University of Illinois Economics Department Fellowship Fall, Spring 2014
- Awarded in the “List of Teachers Ranked as Excellent by their Students” 2016–2020 (7 Semesters)
- University of Illinois Graduate Teaching Certificate May 2019