

# Mani Bayani

*Curriculum Vitae*

## PERSONAL DETAILS

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*Address* 415 Lefferts Ave, Apt A16, Brooklyn, New York  
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## EDUCATION

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### Ph.D. Economics

2016-present

*The Graduate Center of the City University of New York*

Fields: Econometrics and Machine Learning, High-Dimensional Models, Policy Analysis

Dissertation: "Essays on Machine Learning Methods in Economics"

### M.Sc. Applied Mathematics

2020-present

*Columbia University in the City of New York*

### M.Sc. Analytics

2018-2021

*Georgia Institute of Technology*

*Computational Data Analytics Track*

### M.Sc. Computer Science

2018-2021

*University of Illinois at Urbana-Champaign*

*Concentration: Machine Learning*

### M.A. Economics

2011-2014

*University of Tehran, Iran*

Thesis title: "The implementation of hidden Markov models for estimating CO2 emissions"

### B.Sc. Computer Science

2006-2010

*Sheikh Bahaei University, Iran*

## WORKING PAPERS

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- Robust PCA Synthetic Control Model [Under Reiview]  
<https://arxiv.org/abs/2108.12542>
- The Contribution of the Minimum Wage to US Wage Inequality: A Penalized Spline Approach  
<https://mbayani.github.io/The-Contribution-of-the-Minimum-Wage-to-US-Wage-Inequality/>

## WORK IN PROGRESS

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- Improving Time Series Extrinsic Regression

## RESEARCH EXPERIENCE

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### Data Science Institute Scholar

2020-2021

*Columbia University*

Research on broadband funding with Professor Henning Schulzrinne

### Data Science Fellow

2020-present

*The Baruch College of the City University of New York*

Analysis of Baruch students' academic performance with Professor Sonali Hazarika

### Research Assistant

2020-present

*City University of New York, The Graduate Center*

Research on using artificial intelligence to analyze complex and highly dimensional economic models with Professor Lilia Maliar

## TEACHING EXPERIENCE

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### Adjunct Instructor

2017-present

*The Brooklyn College of the City University of New York*

Math for Economist (Econ 3410)

### Adjunct Instructor

2018-present

*The Gabelli School of Business, Fordham University*

Statistical Decision Making (Econ 2142)

Statistics 1 (Econ 2140)

### Teaching Assistant

2020-present

*The Graduate Center of the City University of New York*

Machine learning for economist (Graduate), for Professor Lilia Maliar

### Teaching Assistant

2019-present

*Georgia Institute of Technology*

High-Dimensional Data Analytics (Graduate), for Professor Kamran Paynabar

### Teaching Assistant

2017-2018

*Columbia University*

Statistics and Econometrics (Undergraduate), for Professor Homa Zarghamee

## EXPERIENCE

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### A Collaborative Filtering Recommender System App

Fall 2021

<https://github.com/mbayani/A-Collaborative-Filtering-Recommender-System-App>

### Search on Video

Spring 2020

<https://github.com/mbayani/Search-on-video>

### Company Specific Disruptive News and Continuity Detector

Fall 2019

<https://github.com/mbayani/Company-Specific-Disruptive-News-and-Continuity-Detector>

**Software Test Developer**

*Metaco Holding*

*Isfahan, Iran*

2009-2011

## **SCHOLARSHIPS AND AWARDS**

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**Doctoral Student Research Grant**

*The Graduate Center of the City University of New York*

2020-2021

**The Advanced Research Collaborative Fellowship**

*The Graduate Center of the City University of New York*

2018-2019

**Graduate Center Fellowship**

*The Graduate Center of the City University of New York*

2016-2020

**Graduate Fellowship**

*Western Michigan University*

2015-2016

## **SKILLS**

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*Languages*

Persian (native)

English (fluent)

*Software*

Proficient in PYTHON, R, MATLAB, L<sup>A</sup>T<sub>E</sub>X

Experience with TABLEAU, SQL

## **REFERENCES**

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**Lilia Maliar**, Professor of Economics, The Graduate Center, CUNY

Email: [lmaliar@gc.cuny.edu](mailto:lmaliar@gc.cuny.edu)

**Wim Vijverberg**, Professor of Economics, The Graduate Center, CUNY

Email: [wwijverberg@gc.cuny.edu](mailto:wwijverberg@gc.cuny.edu)

**Sonali Hazarika**, Associate Professor of Economics, Baruch College, CUNY

Email: [sonali.hazarika@baruch.cuny.edu](mailto:sonali.hazarika@baruch.cuny.edu)