# Seyed Moeen Nehzati

## Education

2022–2027 PhD in Economics.

New York University, NY, USA

2015–2019 **BS in Computer Engineering**, Focused on statistics and theoretical computer science.

Sharif University of Technology, Tehran, Iran

cumulative GPA: 19.08/20

Among a class of top 0.05% in Iran's national university entrance exam

## Research Interest

Economic Theory - Applied Microeconomics - Econometrics and Machine Learning.

## Work Experience

2020-2022 Predoctoral research fellow, UCLA and USC.

Working on genoeconomics under Daniel Benjamin, Alexander Young, and David Cesarini, there I leveraged my knowledge of statistics and computation to attack huge genetic datasets and investigate the relationship between behavioral traits and genetics

2019 Auction Design consultant, Cafe bazaar.

Cafe bazaar is an Iranian android marketplace with 50 million users. There, I worked on optimizing the advertisement auctions and empirical evaluation of them. Because of my technical background, I also took part in creating and deploying the machine-learning models the auctions depended on.

## **Publications**

Mendelian imputation of parental genotypes for genome-wide estimation of direct and indirect genetic effects, published in Nature genetics.

Polygenic prediction within and between families from a 3-million-person GWAS of educational attainment, published in Nature genetics.

Parents' genes affect their child's educational achievement through the environment: evidence from three-generation polygenic index analysis, Submitted to Science.

Novel estimators for family-based genome-wide association studies increase power and robustness, Working paper.

Building Stable Off-chain Payment Networks, working paper.

## Softwares

SNIPar, Github.

A python library for fast imputation of missing parental genotypes from observed genotypes in a nuclear family, and for performing family-based genome-wide association and polygenic score analyses.

## Technical skills

Python/Java Expert Scientific Programming Expert Pytorch/Scikit Experienced

Pytorch/Scikit Experienced C/C++/R/SQL Experienced

## **Economics-Relevant Coursework**

#### **Economics:**.

The graduate first-year sequence in Microeconomics, Macroeconomics, and econometrics/ Algorithmic Game theory (19.9/20)/ Mechanism design[graduate at Stanford] (audited)/ System Dynamics[graduate] (20/20)

## Statistics and machine learning:.

Causal inference[graduate] (20/20)/ Information theory[graduate] (18.9/20)/ Deep learning[from Google] (audited)/ Machine learning (audited)/ Probability and Statistics (20/20)

#### Mathematics:.

Mathematical Analysis (A)/ Linear algebra (20/20)/ Multivariate-Calculus (18/20)/ Differential equations (19.1/20) / Numerical methods (19.3/20)

## Theoretical computer science:.

Design and analysis of algorithms[with a focus on graph algorithms] (18.8/20)/ Discrete mathematics (19.6/20)/ Theory of languages and automata (19.1/20)/ Computability theory (20/20)

## Computer engineering(with a focus on data):.

Database design (18.7/20)/ Modern information retrieval (18.6/20)/ Advanced programming (19.7/20)/ Fundamentals of programming (20/20)/ Compiler design (20/20)

## **Summer Schools**

- 2021 Summer Institute in Social-Science Genomics, Social Science Genetic Association Consortium.
- 2019 Big data in economics, Tehran Institute for Advanced Studies.
- 2019 **Economics of Cryptocurrencies**, Tehran Institute for Advanced Studies.

## Awards and Honors

Among top 0.05% in Iran's national university entrance exam.

## Member of Iran's National Elites Foundation.

INEF regards its young members as those who will lead Iran's future in science, culture and art

# Languages

## Persian(native)/ English(advanced)/ Mazandarani(intermediate)/ Arabic(basic)

## References

name	email address
<ul> <li>Prof. Daniel Benjamin</li> <li>Anderson School of Management, UCLA</li> </ul>	o daniel.benjamin@anderson.ucla.edu
<ul> <li>Dr. Alexander Young Anderson School of Management, UCLA</li> </ul>	o alexander.young@anderson.ucla.edu
<ul> <li>Prof. David Cesarini</li> <li>Department of Economics, NYU</li> </ul>	o dac12@nyu.edu