

## Education

- 2022–2027 **PhD in Economics.**  
New York University, NY, USA
- 2015–2019 **BS in Computer Engineering.**  
Sharif University of Technology, Tehran, Iran  
cumulative GPA: **19.08/20**

## Research Interest

**Optimization Theory - Econometrics and Machine Learning - Experimental Design.**

## Work Experience

- 2020–2022 **Predoctoral research fellow, UCLA and USC.**  
I worked on disentangling the complex relationship between genetic factors and behavioral traits. I was responsible for solving statistical models and implementing efficient solutions scalable to terabytes of data. This effort led to papers published in Nature and the development of statistical software regularly used by practitioners in the field.
- 2019 **Auction Design/ Data Science, Cafe bazaar.**  
Cafe Bazaar is an Iranian Android marketplace with more than 50 million active users. There, I worked on optimizing the advertising auctions and evaluating them empirically. Due to my technical background, I also participated in the creation, implementation, and deployment of the machine learning models needed for resolving auctions.

## Research

- Draft **Efficient Large-Scale Matching By Optimal Transport, Draft.**
- Family-GWAS reveals effects of environment and mating on genetic associations, submitted to Nature Genetics.**
- Parents' genes affect their child's educational achievement through the environment: evidence from three-generation polygenic index analysis, submitted to Nature Genetics.**
- Family-based genome-wide association study designs for increased power and robustness, Nature Genetics.**
- Mendelian imputation of parental genotypes for genome-wide estimation of direct and indirect genetic effects, Nature Genetics.**
- Polygenic prediction within and between families from a 3-million-person GWAS of educational attainment, Nature Genetics.**
- Building stable off-chain payment networks, unpublished undergraduate thesis, [available here](#).**

## Software

- SNIPar, [available here](#).**  
A python library for fast imputation of missing parental genotypes from observed genotypes in a nuclear family, performing family-based genome-wide association and polygenic score analysis
- poissonreg, [available here](#).**  
A lightweight python package for fast sparse poisson regression based on pytorch

## Technical skills

**Python/Java/Cython** Expert  
**Scientific Programming** Expert

**Pytorch/Scikit/Spark** Experienced  
**C/C++/R/SQL/Julia** Experienced

## Awards and Honors

**Among top 0.05% in Iran's national university entrance exam.**  
**Member of Iran's National Elites Foundation.**

## Languages

**Persian(native)/ English(Fluent)/ Arabic(basic)**

## References

name	email address
○ Prof. Alfred Galichon Courant Institute of Mathematical Sciences & Department of Economics, NYU	○ ag133@nyu.edu
○ Prof. David Cesarini Department of Economics, NYU	○ dac12@nyu.edu
○ Prof. Daniel Benjamin Anderson School of Management, UCLA	○ daniel.benjamin@anderson.ucla.edu