

Amin Shirazian

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SUMMARY

Economics PhD candidate with 5+ years of research experience, specializing in applied econometric and structural modeling of large micro-datasets. Strengths in causal and quantitative analysis, missing-data and survey methods, and translating technical findings into decision-ready conclusions. Skilled in Stata, R, Python, MATLAB, and C++.

EDUCATION

Ph.D., Economics — Toronto Metropolitan University *Expected Summer 2026*

GPA 4.17/4.33 | Fields: Macroeconomics, Heterogeneous-Agent Models, Policy & Health Economics

Dissertation: *Marginal Utility Shocks and the Precautionary Saving Puzzle* (Advisor: K. Eslami)

M.A., Economics — Tehran Institute for Advanced Studies 2020

GPA 4.00/4.33

B.A., Economics — University of Tehran 2018

TECHNICAL SKILLS

Statistical / data: Python, Stata, R (Statistical analysis)

Computational / modeling: MATLAB, C++ (numerical optimization, structural model solution)

Other: \LaTeX , Git, HTML/CSS

Methods: Nonlinear & OLS estimation, dynamic optimization, calibration, missing-data imputation, survey microdata (HRS, MEPS)

SELECTED QUANTITATIVE & RESEARCH PROJECTS

Structural Modeling of Household Financial Behavior — Job Market Paper *2022–Present*

- Built and calibrated a heterogeneous-agent structural model of household saving to U.S. Health and Retirement Study (HRS) microdata; solved the dynamic optimization problem numerically in C++/Python.
- Identified a health-driven mechanism explaining saving behavior across the full wealth distribution, reconciling model output with observed patterns where standard models fail.
- Estimated a nonlinear health-production function via NLS on 4,600+ survey respondents (HRS waves 8–13); validated results with robustness checks across parameter confidence intervals.

Means-Tested Insurance and Pareto-Tailed Wealth Distribution — Second Paper *2022–Present*

- Designed an imputation pipeline linking two national health surveys to recover total medical spending for records where it is unobserved. Theoretically proved and empirically verified the consistency of the imputations.

Competition & Market Entry in Remote Communities (with N. Li, Y. Mudathir) *In Progress*

- Analyzing how online market entry reshapes pricing and competition in remote Indigenous communities; directly relevant to broadband access and northern-subsidy policy.

PROFESSIONAL & TEACHING EXPERIENCE

Contract Lecturer & Teaching Assistant — Toronto Metropolitan University *2021–Present*

- Designed and delivered lectures for seven course sections (Intermediate/Introductory Macroeconomics, Globalization) to hundreds of students; distilled complex quantitative material for non-specialist audiences.
- TA for graduate and advanced courses (Adv. Macroeconomics, Mathematical Economics, Adv. Microeconomics).

Research Assistant — 5+ Years Continuous *2018–Present*

Toronto Metropolitan University (2020–Present) | University of Toronto (Summer 2023) | TeIAS, Tehran — Prof. Hagh-Panah (2018–2020)

- Conducted empirical and computational research across health and macro projects; built and maintained reproducible data and estimation workflows.

LEADERSHIP

President, Economics Graduate Students Association, TMU (2021–22); **VP Education** (2023–24) & **VP Communication** (2022–23)

Director, Graduate Students Union, TMU (2021–22)

Director, Students Union, University of Tehran (2014–15).

- Led teams, organized events, and represented graduate students to faculty and administration.

HONORS & LANGUAGES

Full Graduate Scholarship (Ph.D./M.A., 2018–2026)

Graduate Assistant Recognition Award, TMU (2022–23) | **Top Second-Year PhD Student**, TMU (2021)

Languages: English (fluent), Persian (native)