

Arin Shahbazian

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 Blacksburg, Virginia

 Webpage

Personal Statement

As a PhD candidate in economics with expertise in quantitative methods, causal inference, and machine learning (ML), I specialize in analyzing large national survey datasets, EHR, and RCT data to identify robust causal relationships. My research integrates advanced econometric techniques with ML approaches to address identification challenges and translate technical findings into practical solutions. Through recent internship experience working with large-scale health claims datasets, I have further strengthened my expertise in applying rigorous statistical and causal analysis methods to applied research.

Education

- Ph.D. Candidate in Economics, Virginia Tech (VT)
- Master of Economics, Virginia Tech ([VT](#)) Jan 2021- Dec. 2022
- Master of Socio-Economic Systems Engineering, [SUT](#), Iran Sep. 2013- Jan. 2016
- Bachelor in Applied Mathematics, [KNTU](#), Iran Sep. 2007- Sep. 2012

Recent Research Experience and Working Papers

- **Arin Shahbazian**, Wen You, Xu Lin, Delia West, Becca Krukowski, “Time to Weight Loss and Subsequent Weight Maintenance: A Survival Analysis” (Job Market Paper)
- **Arin Shahbazian**, Wen You, Xu Lin, Delia West, Becca Krukowski, “The Role of Motivations in Weight Outcomes: An RCT Study” (in progress)
- Mackenzi Oswald, **Arin Shahbazian**, Kathryn M. Ross, Wen You, Becca Krukowski, “An Exploratory Analysis of Patterns of Weight Change in a Post-Cessation Weight Management Trial” (Published at Nicotine and Tobacco [Research](#), May 2025).
- Asal Pilehvari, **Arin Shahbazian**, Becca Krukowski, Caroline Mulligan, “Machine Learning-Driven Insights into the Structural and Socioeconomic Predictors of Top Five Cancer Mortality Rates in the U.S.” (Under review in “Cancer Medicine” journal)
- Asal Pilehvari, **Arin Shahbazian**, “Machine Learning for Breast Cancer Stage Prediction in Claims Data: A SEER-Medicare Study” (in progress).
- Asal Pilehvari, **Arin Shahbazian**, Qingyi He, Gloribel Bonilla, Roger Anderson, “Impact of Treatment Delays on Healthcare Costs in Patients with Breast Cancer: A Mediation Analysis of Healthcare Utilization by Socioeconomic Status” (submitted to CMS for initial approval).
- Asal Pilehvari, **Arin Shahbazian**, Gloribel Bonilla, Roger Anderson, “Disparities in Treatment Delay and its Trends” (submitted to CMS for initial approval).

Research Interests

- Applied Economics
- Health Economics

- Machine Learning
- Household & Poverty Studies

- Causal Inference
- Policy Evaluation

Work Experience

- **Research Assistant** at [PUBLIC HEALTH DEPARTMENT, UVA](#), VA, USA. Jan. 2025- May 2025
- **Data Analyst & Econometrician** at [NETBINA](#), Tehran, Iran. Feb. 2019- Jan. 2021
- **Data Analyst & Researcher** at [PARLIAMENT RESEARCH CENTER](#), Tehran, Iran. Mar. 2017- Jan. 2021
- **Researcher** at [INSURANCE RESEARCH CENTER \(IRC\)](#), Tehran, Iran. Mar. 2016- Oct. 2018
- **Economist** at [TEHRAN CHAMBER OF COMMERCE \(TCCIM\)](#), Tehran, Iran. Jan. 2017- Mar. 2017

Conference Presentations

- Time to Weight Loss and Subsequent Weight Maintenance: A Survival Analysis
 - Presented at Economics Graduate Student Conference ([EGSC](#)) at WashU, October 2024
 - Presented at Global ([GLO](#)) Conference, December 2025
- The Role of Motivations in Weight Outcomes: An RCT Study
 - Presented at 14th Annual Conference of the American Society of Health Economists ([ASHEcon](#)), June 2025
- Machine Learning-Driven Insights into the Structural and Socioeconomic Predictors of Top Five Cancer Mortality Rates in the U.S.
 - Presented at Annual Public Health Association ([APHA 2025](#)), November 2025

Teaching Experience

Lecturer

WINTER 2026	Principal Microeconomics (asynchronous), Department of Economics, VT
FALL 2025	Intermediate Microeconomics (in-person), Department of Economics, VT
FALL 2024	Intermediate Microeconomics (in-person), Department of Economics, VT
SUMMER 2024	Principal Microeconomics (online), Department of Economics, VT
FALL 2023	Intermediate Microeconomics (in-person), Department of Economics, VT
SUMMER 2023	Intermediate Microeconomics (online), Department of Economics, VT

Teaching Assistant

- Development Econ & Middle East Econ (FALL 2021, 2022, SPRING 2021 (VT))
- Data Science for Quantitative Finance (SPRING 2022 (VT))
- Econometrics Methods & Introduction of Forecasting (SPRING 2024, SPRING 2022 (VT))
- Principles of Microeconomics (SPRING 2023 (VT))
- Microeconomics Theory (FALL 2019, 2015 (SUT))
- Applied Econometrics (SPRING 2016 (SUT))
- Financial Econometrics (SPRING 2015 (SUT))

Recent Awards and Honors

- **Outstanding Graduate Instructor of the year**, Department of Economics [VT](#), 2024.
- **Armenian General Benevolent Union Scholarship (AGBU)** [Recipient](#), 2024-2025.
- **Armenian Student's Association Scholarship (ASA)** [Recipient](#), 2023-2025.
- **Full-Time Graduate Assistantship**, Department of Economics, VT (2021- present).
- **Graduate School Travel Fund Program Grant**, VT (Spring 2024, Spring 2025, Fall 2025).

Technical and Programming Skills

- R, Python, Stata (Proficient)
- Julia, SQL, SAS, MATLAB, JMP, SPSS, Eviews (Working Knowledge)

SERVICE ACTIVITIES

- Vice President, Treasurer, and Secretary of Armenian Student Association at Virginia Tech (2023-2025)

Language Proficiency

ARMENIAN: Native

PERSIAN: Native

ENGLISH: Fluent

Reference

- **Dr. Xu Lin** (Ph.D. Dissertation Advisor)
Associate Professor of Economics, Department of Economics, Virginia Tech
Email: xulin88@vt.edu
- **Dr. Djavad Salehi-Isfahani** (Faculty Supervisor in Research)
Professor of Economics, Department of Economics, Virginia Tech
Email: salehi@vt.edu
- **Dr. Asal Pilehvari** (Internship's Supervisor)
Assistant Professor of Public Health Sciences, Department of Public Health, University of Virginia
Technical Director, Population Health and Cancer Outcomes Core, UVA Cancer Center
Email: asal@virginia.edu
- **Dr. Wen You** (Committee Member)
Professor of Public Health Sciences, Department of Public Health, University of Virginia
Director, Population Health and Cancer Outcomes Core, UVA Cancer Center
Adjunct Professor, Department of Agricultural & Applied Economics, Virginia Tech
Email: wenyou@virginia.edu