Hamidreza Habibi

hhabibi1@ucsc.edu | https://hamidhabibi.com/ | linkedin.com/in/hamid-habibi | https://scholar.google.com/citations?user=-KhQEL0AAAAJ&hl=en

SUMMARY

- Ph.D. candidate specialized in Causal Inference, Health and Public Economics.
- Six years of hands-on experience applying econometrics and ML algorithms to large datasets to answer real-world questions.
- Strong communication and teamwork skills developed through a combination of teaching, faculty seminars, presentations, peer collaborating, and co-authored academic research.

TECHNICAL STRENGTHS

- **Causal Inference:** Experimentation (RCT, Hypothesis Testing, A/B Testing), Synthetic control, Difference-in-Differences, Matching, Instrumental Variables, Regression Discontinuity
- **Programming:** R, SQL, Python, STATA, Microsoft Office, LaTeX

EDUCATION

University of California, Santa Cruz — **Santa Cruz, CA**
Ph.D. Economics — *June 2025 (expected)*
- **Relevant Coursework:** Advanced Econometrics I-III, Machine Learning, Advanced Microeconomic Theory I-III

Illinois State University — **Normal, IL**
M.S. Mathematics and Economics — *June 2019*

University of Tehran — **Tehran, Iran**
B.S. Economics — *June 2016*

RESEARCH PROJECTS & PUBLICATIONS

Job Market Paper: Curbing Pharma Influence: The Effect of Marketing Restrictions on Physicians' Prescribing Behavior
- Constructed several datasets linking 55 million industry payments to doctors' prescriptions record in Medicare Part D
- Using various causal inference strategies, I document the significant reductions in the volume of marketing activities, prescription volume, and drug expenditure to NJ physicians compared to the peers in neighboring states of NY and PA.

Quantifying Specific and Systemic Factors in the Black-White Wealth Gap in the United States
with Rongchen Liu, Gonzalo Martin Respighi Grasso, Anirban Sanyal, and Nirvikar Singh
Published in "Journal of Race, Economics and Policy,2024." https://doi.org/10.1007/s41996-024-00160-4
- Using the 2016 Survey of Consumer Finances and various decomposition approaches, the study finds that individual characteristics only partially explain the Black-White wealth gap, with quantile regressions indicating that race significantly influences wealth disparities beyond measurable factors.

An equity-minded multi-dimensional framework for exploring the dynamics of sense of belonging in an introductory CS course *with Narges Norouzi, Anna Sher, and Carmen Robinson*
Published in "Proceedings of ITiCSE 2023, V1,2023." https://doi.org/10.1145/3587102.3588780
- Applied multivariate logistic regression models to 3 waves of institutional surveys with 440+ variables
- The results suggested that social perceptions persistently affect students' sense of belonging to CS and engineering courses

Determinants and Prediction of Patients' Waiting Time in Emergency Departments
- Implemented the Post-lasso algorithm to analyze a nationally representative survey of doctors and patients over 9 years
- Found that black people with public insurance wait 6 minutes more than white individuals with private insurance in ED

Return and Volatility Spillovers across Western and MENA Countries *with Hassan Mohammadi*
Published in "The North American Journal of Economics and Finance, 2022." https://doi.org/10.1016/j.najef.2022.101642
- Analyzed weekly data on returns and volatility over 12 years and variance decomposition methodology of Diebold and Yilmaz
- Found that 42.5% and 46.9% of variations in return and spillover indices across the fifteen markets are due to spillovers

F-Derangements and Decomposing Bipartite Graphs into Paths *with Mike Plantholt and Benjamin Mussell*
Published in the "Art of Applied and Discrete Mathematics,2024." https://doi.org/10.26493/2590-9770.1576.a47
- Proved that under a fixed maximum number of pre-images for any item under f, the fraction of permutations that are f-derangements tend to 1/e for large n, regardless of the choice of f

Classification and Prediction of Breast Cancer Diagnosis in Wisconsin Using Machine Learning
- Trained an SVM and classified breast cancer diagnosis. The final accuracy score was 0.9586

Predicting Bank of America's Stock Price Movements Using Machine Learning
- Found that XGBoost outperforms other methods in predicting BA's stock price movements. Obtained AUC of 0.8644

RELEVANT EMPLOYMENT

UCSC Institution for Research, Assessment, and Policy Studies — **Santa Cruz, CA**
Graduate Student Researcher — *January 2022 - July 2022*
- Extracted and analyzed institutional survey data with ~450 variables, conduct regression analysis and statistical modeling
- Wrote 15+ reports to influence the university's decision-making in coordination with different groups in the business

University of California, Santa Cruz — **Santa Cruz, CA**

Instructor and Teaching Assistant in Causal Inference *March 2020 - present*

- Enhance academic success for 80+ students by holding sections and teaching a core upper-division course in causal inference
- Earned Best Teaching Assistant Award for exceptional skills and passion for students' success