

Sinan Parmar

Kenneth C. Griffin Department of Economics, University of Chicago
sinanparmar@uchicago.edu | (312) 478-4045 | Web Page

This version: August 2, 2026

Education

Bachelor of Science in Physics

Bogazici University

September 2018 – June 2023

Istanbul, Türkiye

PhD in Economics

The University of Chicago

September 2025 – *Present*

Chicago, USA

Relevant coursework:

Economics: Advanced Research Methods in Applied Economics, Advanced Macroeconomics, Competition Policy, Game Theory, Microeconomics, Banking and Finance

Mathematics and Statistics: Linear Algebra, Differential Equations, Calculus, Mathematical Methods for Physicists (Functional and Complex Analysis), Statistical Mechanics

Computer Science: Machine Learning in Finance & Economics, Data Structures and Algorithms, Deep Learning in Physics

Research Interests: Growth, Firm Dynamics, Competition, Machine Learning in Economics

Research Experience

University of Chicago

Chicago, IL

Predoctoral Research Fellow to Ufuk Akcigit

September 2023 – July 2025

- Leading research that utilizes machine learning tools at the Akcigit Research Team focusing on scientific impact, novelty and innovation.
- Developed a topic modeling framework to analyze the information flow dynamics between publications and patents using high dimensional clustering methods, dimensionality reduction techniques and text embeddings.
- Created a textual analysis framework using BERT variants and USPTO patents to understand firm competition and market dynamics.
- Managing a large database of publications and patents with 300M+ observations using big data and machine learning tools.
- Running regressions and model estimations.

Research Assistant to Ufuk Akcigit

October 2021 – August 2023

- Created productivity measures for authors and institutions using publication datasets MAG, Scopus and Web of Science. Coauthored a report on the Turkish diaspora (Akcigit et al., 2023) looking at effects of brain drain and productivity spillovers in Türkiye.
- Prepared training data for an author disambiguation project by merging multiple publication datasets using machine learning methods and fuzzy matching techniques.

World Bank Group

Chicago, IL

Short-Term Consultant

September 2024 – July 2025

- Developing text matching and information extraction algorithms for firm data in multiple languages using natural language processing methods and fuzzy matching techniques.
- Preparing data analytics and descriptives for global job postings and ORBIS data.

Bogazici University

Istanbul, Türkiye

Research Assistant to Murat Koyuncu

February 2023 – June 2023

- Developed an OCR-NLP method using the PyTorch deep learning framework and pretrained segmentation models to automatically parse and digitize different template versions of the Türkiye Trade Registry Gazette.

Research Assistant to Arkadas Ozakin

June 2020 – February 2023

- Prepared modeling experiments to improve the performance of transformer-based earthquake detection methods.
- Prepared educational material on machine learning and deep learning, mentored the new members at the EarthML lab.
- Studied deep learning based earthquake early detection models.

NYK Energy

Istanbul, Türkiye

Research Analyst Intern

August 2021 – October 2021

- Developed a recurrent neural network that predicts day-ahead prices in the Turkish energy market utilizing weather forecasts, planned production data and historical price data.

Washington University in St. Louis

Remote

Research Assistant to Deniz Aydin

July 2020 – September 2021

- Created macroeconomic indicators for different sectors in Türkiye using publicly available macroeconomic data from Turkish Data Monitor.

Presentations

Machine Learning with Publication Data

Bank of England QMA Team, July 2024

Presented at the Bank of England QMA Team meeting about machine learning practices with publication data, mostly about natural language processing and optical character reading methods.

Skills & Language

Technical: Stata (fixed effect models, panel data analysis, instrumental variables, event studies), Python (PyTorch, TensorFlow, Pandas, Polars, NumPy, Numba, Scikit-Learn, Statsmodels, SciPy, Seaborn, Qiskit), MPI, L^AT_EX, ROOT, MATLAB

Language: Fluent in English, Native in Turkish, Elementary in Spanish

Scholarships

The Scientific and Technological Research Council of Türkiye (TUBITAK) Undergraduate Scholarship (Awarded to students who are ranked in the top 1% in the national university entrance exam.)

The Scientific and Technological Research Council of Türkiye (TUBITAK) STAR Intern Researcher Scholarship (Awarded to students who take part in selected research projects.)

Volunteering

Cofounder, instructor and mentor at QTurkey Bogazici University Branch

Board Member & Technical Supervisor at Bogazici University Music Club, 2020 – 2022