

Doruk Gökalp

New York City, NY, USA - doruk.gokalp@nyu.edu - [linkedin.com/in/dorukgokalp](https://www.linkedin.com/in/dorukgokalp) - dorukgokalp.com

Profile

NYU Economics PhD candidate specializing in forecasting, time-series econometrics, statistical learning, and large-scale quantitative modeling. Experience developing forecasting models and analytical tools at Google using Python and SQL, with additional expertise in Bayesian methods, structural modeling, and HPC.

Education

New York University	2021 – 2027 (Expected)
PhD in Economics	Outstanding Teaching Award (2025)
Universitat Pompeu Fabra	2020 – 2021
Master of Research in Economics	GPEFM Fellowship
Barcelona School of Economics	2019 – 2020
M.Sc. in Economics and Finance	Ranked 1st in cohort
Middle East Technical University	2014 – 2019
B.Sc. in Mathematics and Economics	Dual Degree, High Honor

Technical Skills

Languages: Python, SQL, R, MATLAB, C++

Methods: Machine learning, time-series forecasting, state-space and Markov-switching models, Bayesian estimation, structural modeling and estimation, panel and high-frequency econometrics, causal inference

Tools: AI-assisted development (Codex, Antigravity), Git, Stata; distributed and high-performance computing

Experience

Data Scientist Research Intern | Google May 2026 – Aug 2026

- Developed a dynamic survival analysis framework to model non-linear hazard decay in long-horizon subscriber retention, reducing multi-year forecasting error by up to 10x across subscription tiers.
- Developed a structural model of subscription growth using empirical survival durations. Built a reusable implementation library and maintained stakeholder dashboards. Authored a reusable skill for internal agentic coding tools to automate dashboard production.

Research Assistant | NYU Jan 2023 – Jan 2025

- Built high-frequency forecasting and shock-decomposition models for asset price dynamics and macro news, integrating event-driven features into predictive pipelines.
- Scaled estimation workflows on HPC clusters using vectorization and parallelization to support large predictive workloads and rapid iteration.

Research Assistant | Center for Research in International Economics (CREi) Apr 2020 – Sep 2021

- Developed and simulated macroeconomic models to forecast trade and policy shocks; executed counterfactual scenarios to quantify impacts. Delivered quantitative projections and reproducible MATLAB/Stata code that supported academic and policy analysis.

Lecturer and Teaching Assistant | NYU, UPF, BSE, METU 2020 – Present

- Lecturer for undergraduate Econometrics across four terms (2023–2025) and Statistics (Spring 2026).
- Teaching Assistant for Graduate Macroeconomics across NYU MA and MSQE programs.

Selected Projects

Accelerated IV-VAR Estimation Engine *NYU Course Project*

Re-engineered MATLAB replication code from an academic IV-VAR application, vectorizing and parallelizing computationally intensive estimation routines to reduce bootstrap runtimes from 128s to 8s (16x) and accelerate forecast-variance decomposition.

Stock Market Belief Dynamics and News Events *NYU Research*

Developed Bayesian Markov-switching state-space models in MATLAB, with parallelized estimation routines designed for execution on HPC clusters, to study regime shifts around macroeconomic news releases; project presented at macro and finance conferences.

Textual Analysis of Central Bank Communications *UPF Course Project*

Built a Python pipeline for large-scale processing of central bank communications, applying LDA topic modeling and clustering to track the evolution of latent themes over time and characterize shifts in monetary-policy communication.