

Stephen Min

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<https://topologicaldonut.github.io/>

EDUCATION

Simon Fraser University

Master of Arts in Economics

Burnaby, BC

Aug. 2023 – Aug. 2024

- Focused on advanced economic theory, applied econometrics, and causal inference.
- Coursework included empirical projects, development of research proposals, and culminated in an independent research paper.

University of Texas at Dallas

Bachelor of Science in Economics and Applied Mathematics

Richardson, TX, USA

Jan. 2018 – Dec. 2022

SKILLS

Programming/Statistical Languages: R, Python, SQL

Other Technologies: Microsoft Office (Excel, Word, PowerPoint), Tableau

EXPERIENCE

Teaching Assistant

Simon Fraser University

Aug. 2023 – May 2024

Burnaby, BC

- Provided academic support for 30-60 students per semester across multiple introductory economics courses through regular office hours, email correspondence, and tutorial sessions.
- Independently designed and delivered weekly tutorial sessions while coordinating with professors on teaching responsibilities and student concerns to maintain alignment with course objectives.
- Collaborated with teaching teams to grade exams for 200+ students, ensuring consistent evaluation standards and meeting strict deadlines.
- Guided students in using Excel (including topics such as VLOOKUP, pivot tables, and data validation) and R (basic syntax, tidyverse, ggplot2) for economic data analysis.

Tutor

Victory Step Education

Sep. 2022 – July 2023

Plano, TX, USA

- Managed a concurrent caseload of 5-10 K-12 students, providing personalized tutoring in standard test preparation (SAT, AP, etc.) and core academic subjects.
- Delivered detailed session reports to both parents and management for the purposes of documenting and communicating student progress, challenges, and improvement strategies.
- Achieved notable student improvements such as increases of 200+ points for the SAT.

PROJECTS

Detecting Discrimination Patterns with Machine Learning | R

- Applied a causal machine learning algorithm (generalized random forest) to investigate patterns of racial discrimination in hiring practices.
- Conducted in-depth analysis of algorithm outputs to uncover systematic patterns in hiring discrimination across different candidate profiles.
- Authored a comprehensive research paper detailing relevant literature, methodologies, analysis, visualizations, and conclusions.

ONS Item-Level Price Index Pipeline | Python, SQL

- Engineered an ETL pipeline that collects UK Office of National Statistics' item-level Consumer Price Index data and loads it into a DuckDB database.
- Built a robust web scraper to handle inconsistent file naming and navigate scattered data across main and "previous versions" pages with automatic deduplication of data files.
- Implemented a configurable data validation framework using Polars that enforces data quality rules, handles date formatting, and maintains detailed error logs for debugging.

UK Tax Policy Analysis | SQL, R

- Developed SQL queries to extract and normalize price indices from ONS pipeline database for policy analysis.
- Applied time series modeling (ARIMAX) in R to evaluate the price impact of a specific UK tax policy change.
- Created a report that addressed methodological challenges and presented results, visualizations, and analysis.