

Spencer Ma

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EDUCATION

THE GEORGE WASHINGTON UNIVERSITY

Washington, DC

Bachelor of Science in Economics and Data Science.

May 2026

GPA: 3.94

Presidential Scholarship Recipient

Relevant Coursework: Real Analysis, Mathematical Reasoning, Intermediate Microeconomic Theory (Mathematical), Introduction to Econometrics, Calculus 3, Linear Algebra, Data Mining, Data Visualization.

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE (LSE)

London, UK

Summer School.

Aug 2025

Relevant Coursework: Applied Econometrics and Big Data (Grade: A+), Economics of European Integration (Grade: A).

RESEARCH EXPERIENCE

The George Washington University Department of Economics

Washington, DC

Research Assistant under Professor Maggie Chen

January 2024 - Present

- Conducted econometric analysis of Chinese indemnity data ($N = 500$) using Stata, R, fixed effect regressions, and causal inference techniques.
- Built and analyzed large textual datasets (Library of Congress) using Python and sentiment analysis; transformed archival data into machine-readable formats for empirical work.

Senior Thesis - Skilled Immigration and Business Diversity: Evidence from the H-1B Lottery – May 2025

- Estimated the causal effect of the H-1B visa on business diversity (HHI) using continuous difference-in-differences and county-level data ($N = 3.5$ million) from USCIS, the US Census Bureau (County Business Patterns), and the Department of Labor.
- Implemented various robustness checks including parallel trends, Wald tests, placebo treatments, and COVID-year exclusions, ensuring internal validity.
- Cleaned and analyzed data using R; visualized relevant figures and tables utilizing LaTeX and ggplot2 for publication-ready figures and tables.

WORKING PAPERS

“Skilled Immigration and Business Diversity: Evidence from the H-1B Lottery” – Working paper, under revision

SKILLS

Technical Skills: R (tidyverse, ggplot2), Stata, LaTeX, ArcGIS, Python

Research Skills: Causal inference, difference-in-differences (DiD), instrumental variables (IV), panel data analysis, fixed effects models, regression analysis, data visualization, data cleaning, literature review, mediation analysis, endogeneity

Other: Teaching/tutoring, academic writing, mathematical reasoning (calc I–III, proof-based logic)

TEACHING EXPERIENCE

The George Washington University Department of Mathematics

Washington, DC

Undergraduate Learning Assistant (Math 1220)

August 2023 – December 2023

- Held twice-a-week workshops to assist first-year students in filling knowledge gaps in algebra and pre-calculus.
- Reinforced basic math concepts through graphing and numerical demonstrations for first-year students.
- Increased grade distribution of students earning As and Bs on the 2nd midterm and final exam.

OTHER EXPERIENCE

Milliman
Analytics Intern

Boston, MA - Remote
May 2024 - July 2024

- Applied generalized linear models (GLMs), lasso and ridge regression, and principal component analysis (PCA) to census-tract healthcare and socioeconomic data in R and Python.
- Developed geospatial visualizations of health outcomes and social determinants using ArcGIS and R.
- Conducted literature review on disaster-related risk management to support actuarial and analytics teams.

AWARDS AND HONORS

- Finalist, IAES Best Undergraduate Paper Award
Recognized in the International Atlantic Economics Society's international competition for a policy-focused undergraduate research paper
- Nominee, Hsieh Prize (Best Paper in Economics)
Nominated by faculty for GW's top economics paper award
- Dean's List, all semesters

OTHER ACTIVITIES

Advanced pianist, 2008 – Present – Achieved 2nd place at the Missouri Music Teachers' Association state piano competition. Performed in various school events and in a Senior Solo Recital, where 30 minutes of repertoire was played.

Principal Cellist, GW Orchestra, 2023 – Present.

Research Analyst, Federal Reserve Challenge, 2023.

Founding Member, GW Astronomy Club, 2023 – Present.