

Aaron Graybill

Aaron Graybill
Research Department
Federal Reserve Bank of Philadelphia
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Education

University of Pennsylvania

Non-matriculated Graduate Student
Philadelphia, Pennsylvania

Sep. 2023–Present

Relevant Coursework:

PhD Microeconomics, Algorithmic Game Theory

Haverford College

B.A. Economics, High Honors, Magna Cum
Laude
Haverford, Pennsylvania

2018–2022

Relevant Coursework:

Advanced Microeconomics, Mathematical Economics, Quantitative Economics, Thesis

Bryn Mawr College

B.A. Mathematics, Dual degree with above
Bryn Mawr, Pennsylvania

2018–2022

Relevant Coursework:

Analysis, Linear Algebra, Stochastic and Numerical Methods, Quantitative Finance, Probability, Applied Multivariate Statistical Analysis

Professional Experience

Research Analyst

Federal Reserve Bank of Philadelphia
Philadelphia, Pennsylvania

Jun. 2022–Present

- Developed novel methodology to uniquely identify homeowners between properties using co-ownership record and mailing address history
- Leveraged concepts from network theory and linear algebra to convert methodology into optimized algorithms
- Authored more than 5,000 lines of R code to apply algorithms to hundreds of gigabytes of property-level tax assessment and transaction data
- Automated chart production for Monetary Policy briefings
- Modernized internal data collection and processing by scraping available data, removing reliance on 3rd party vendors

Teaching Assistant

Economics Department, Haverford College
Haverford, Pennsylvania

Jan. 2023–May 2023

- Lead problem solving sessions for Advanced Microeconomics, the terminal microeconomics course
- Adapted to student needs, teaching concepts from probability theory, calculus, and intermediate microeconomics

Federal Reserve Bank of Philadelphia
Philadelphia, Pennsylvania (Remote)

Jun. 2020–May. 2022

Research Intern

- Analyzed survey results from the Manufacturing Business Outlook Survey for publication of monthly reports about the local business climate
- Generated a dashboard of statistics and charts for COVID-19's economic impacts

Teaching Assistant

Economics Department, Haverford College
Haverford, Pennsylvania

Sep. 2021–Dec. 2021

- Answered student questions about econometrics
- Graded problem sets and provided constructive commentary

Economics Question Center Tutor

Economics Department, Haverford College
Haverford, Pennsylvania

Feb. 2020–May 2022

- Selected to be one of first tutors to set up the Economics Question Center
- Facilitated student collaboration on problem sets and answered questions for all courses

Awards

Michael M. Weinstein Prize in Economics

Haverford College, May 2022.

For having made the greatest overall contribution to departmental life. Awarded for contributions in class, with peers, and for starting the widely used Economics Question Center.

Runner-Up, Holland Hunter Thesis Prize

Haverford College, May 2022.

For outstanding senior theses in economics. One of three selected as finalists for the award.

Technical Skills

Programming: R, Python, Julia, SQL, Shell Scripting (Bash/PowerShell) Stata, Visual Basic

Other: Apache Hadoop, git (GitHub/GitLab), LaTeX

Language: English - Native