

Aden Chen

✉ adenc@uchicago.edu 🌐 adenchen27.github.io in aden-chen-45a924221 🐙 AdenChen27

Education

University of Chicago

Sept 2023 – May 2027

BA in Mathematics and Economics

- GPA: 3.962/4.0
- Dean's List: 2023–2024
- Coursework: Honors Econometrics (ongoing), Honors Elements of Economic Analysis I–III (ongoing), Accelerated Analysis in \mathbb{R}^n I–III (ongoing), Statistical Theory and Methods Ia–IIa, Systems Programming II, Abstract Linear Algebra, Introduction to Mathematical Probability

Research

Research Assistant for Professors Shaoda Wang and Daniel Li Chen

Apr 2024 – present

Becker Friedman Institute

- Built a pipeline for crawling legal documents from court cases involving expert witnesses, collecting over 3M documents and metadata from 1.5M cases.
- Developed an extraction pipeline that uses large language models to identify key case variables, including outcomes, nature of suits, and expert witness affiliations.

Research Assistant for the MiiE Lab

June 2024 – Sept 2024

Becker Friedman Institute; Harris School of Public Policy

- Supported Professor Anjali Adukia in her work to analyze images and texts in textbooks, children's books, and yearbooks using computational methods.
- Crawled public yearbook images and ran computer vision pipelines to estimate demographic compositions.
- Assisted in the development of a version of the Implicit Association Test using OpenSesame.
- Analyzed news articles using various natural language processing techniques, including sentiment analysis, power and agency analysis, and topic modeling.

Student Researcher

Jan 2025 – present

UChicago Mathematics Directed Reading Program

- Studied measure theory, probability, and stochastic processes. Presenting on the Kolmogorov's zero-one law.

Apprentice Researcher

June 2024 – Sept 2024

UChicago Mathematics Research Experience for Undergraduates (REU)

- Studied operator theory and authored an [expository paper](#) on spectral theory and the min-max theorem, which gives a variational characterization of the discrete eigenvalues of a self-adjoint operator below the essential spectrum.

Activities

Oeconomica (Recognized Student Organization)

Sept 2023 – present

- Leader for the Asset Pricing Cohort (2024-2025); Member of the Econometrics Cohort (2023-2024).
- Designed and delivered a quarter-long lecture series on Python for economics research, covering fundamentals, data manipulation, visualization, regression analysis, causal inference, natural language processing, and web scraping. Created Jupyter notebook worksheets for hands-on Python practice. Presented lectures on mathematical prerequisites and a behavioral economics perspective on the equity premium puzzle.

Grader for MATH15200 – Calculus 2

Sept 2024 – Dec 2024

ESL Learning Website

[github repo](#)

- Developed a Django-based website for interactive ESL learning.
- Recognized as a finalist in the Rise Global Challenge by Schmidt Futures and the Rhodes Trust.

Skills

Languages: Python, C++/C, R, JavaScript, HTML/CSS

Technologies: Git, Jupyter, Midway, L^AT_EX, Pandas, NumPy, Beautiful Soup, Selenium, SciPy, NLTK, Django