## ADEN CHEN

**■** (872) 899-4015 | **■** adenc@uchicago.edu | **⊕** Portfolio | **Ģ** GitHub

# **EDUCATION**

# The University of Chicago

Expected, June 2027 Chicago, IL

Bachelor of Arts in Economics and Mathematics

- **GPA**: 3.950
- Dean's List, 2023-2024.

# RESEARCH

# Becker Friedman Institute Summer Internship Program; MiiE Lab

June 2024 - August 2024

Research Assistant

- Supported Professor Adukia in her work to analyze images and texts in textbooks, children's books, and yearbooks using
  computational methods.
- Crawled yearbook data from dynamic websites, and ran computer vision pipelines to estimate demographic compositions.
- Assisted in the development of a version of the Implicit Association Test using OpenSesame.
- Ran various natural language processing algorithms on news articles, including VADER sentiment analysis, VAD analysis, log odds ratio with Dirichlet prior, power and agency analysis, topic modeling, word embedding, and zero shot classification.

# $\ \, \textbf{UChicago Mathematics Research Experience for Undergraduates (REU)} \\$

June 2024 - September 2024

 $Apprentice\ Researcher$ 

• Self studied operator theory. 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.

Research Assistant under Professor Shaoda Wang and Professor Daniel Li Chen  $Research \ Assistant$ 

April 2024 – June 2024

• Developed pipeline for crawling legal documents in court cases involving expert witness. Downloaded over 3M relevant documents and metadata for over 1.5M cases.

#### LEADERSHIP & ACTIVITIES

# Recognized Student Organization: Oeconomica

October 2023 – Present

Coleader of the Macro and Financial Economics Cohort 2024–2025

Member of the Econometrics Cohort 2023–2024

Chicago, IL

- Attend weekly lectures and faculty talks, learning about causal inference, linear regression, R, instrumental variable,
   LATEX, and acquiring insights into the latest faculty research.
- Gave weekly lectures on asset pricing models and Python for economics research.

## Popular Science Articles

January 2023 - Present

Organizer & Creator

- Wrote several articles on behavioral economics, touching on topics including expected utility theory and prospect theory, risk aversion and loss aversion, status quo bias, economic games, social preferences and altruism, competitiveness and the gender equality paradox, framing effect, and scarcity theory.
- Created mathematical animations for economics concepts using Python and Manim. [GitHub].

# Online APA7 In-Text Citation Checker [GitHub] Developer

June 2022 – August 2022

• Designed and developed a webpage utilizing JavaScript and RegEx to check the format of APA7-styled in-text citations.

#### **SKILLS**

Programming: Python, C, C++, R, JavaScript, HTML, CSS, Tcl

Tools: Git, NLTK, Jupyter, LaTeX, Pandas, NumPy, Beautiful Soup, Selenium, SciPy, Django, Manim, Jekyll, VMD

Language: Native in Mandarin Chinese

#### HONORS AND AWARDS

Uncommon Hacks 2024 — Winner in the Web Development track.

Rise Global Challenge 2023 — Finalist.

John Locke Institute Global Essay Competition 2022 — Commendation.

National Olympiad in Informatics in Province, Senior Division 2021 — First Prize.