

# Thomas H. Li

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## EDUCATION

**University of Pennsylvania** | Philadelphia, PA

*Expected May 2025*

Candidate for Bachelor of Arts, Mathematical Economics

Candidate for Master of Science in Engineering, Data Science

- *Undergraduate GPA:* 3.99/4.00; *Masters GPA:* 4.00/4.00
- *Relevant Coursework:* Modeling [Econometrics, Machine Learning, Time Series; Marketing]; Economic Theory [Micro, Macro, Labor, Contract]; Computer Science [Data Structures & Algorithms, Big Data]; Math [Real Analysis, Probability, Linear Algebra]
- *Honors & Appointments:* Dean's List (2022, 2023); Marks Family Writing Center Fellow; Economics Department Advisory Board

## RELEVANT EXPERIENCE

**Computational Social Science Lab at Penn** | Philadelphia, PA

*October 2023 – Present*

*Research Assistant*

- Contribute to epidemic modeling research under Drs. Jorge Barreras and Duncan Watts by creating an open-source GitHub repository for large-scale analyses of GPS mobility data. Code production-level PySpark/Python implementations of spatial data processing, clustering algorithms, and SEIR epidemic modeling.

**University of Pennsylvania School of Engineering and Applied Science** | Philadelphia, PA

*January 2023 – December 2023*

*Teaching Assistant, CIS 1600: Discrete Mathematics for Computer Science*

- Taught weekly recitations of 15+ undergraduates in a class of 280 students, held office hours (help ~20 students/week), wrote homework rubrics, and graded homework and exams. TA staff consistently rated by students as “very good.”
- Content covered proof techniques, set theory, combinatorics, probability, and graph theory (introductory CS course at Penn).

**Federal Reserve Board of Governors** | Washington, D.C.

*May 2023 – August 2023*

*Economic Research Intern*

- Authored production-level script pipeline using R, Stata, Matlab, and Bash to scrape 1 GB of economic data and program a monthly econometric-based indicator for macroeconomic uncertainty. Automated a 3-day manual task to <5 minutes of work.
- Programmed VAR models, produced dozens of publication-quality charts, and completed ad-hoc requests for data, analyses, and literature reviews for presentation to U.S. and foreign central bank governors.

**University of Pennsylvania Marks Family Writing Center** | Philadelphia, PA

*January 2023 – May 2023*

*Writing Fellow*

- Nominated and selected by writing faculty (among 12 out of 1250 first-year students) for superb writing and interpersonal skills. Worked with students one-on-one to develop academic writing abilities and understanding of logic, genre, and rhetoric.

**Behavior Change for Good Initiative & Wharton OID Department** | Philadelphia, PA

*June 2022 – May 2023*

*Research Assistant*

- Collaborated with researchers and Ph.D. students under Professors Katy Milkman and Angela Duckworth on projects designed to identify interventions promoting positive behavior change in education, health, finance, and diversity.
- Programmed R and Python scripts using Twitter API to extract, process, and interact with user data for a large field study.
- Conducted data analysis and visualization using R and Tableau for datasets with 5k to 280k+ observation.

## SKILLS & INTERESTS

**Coding Languages:** Python; Java; R; Stata; Matlab; SQL; OCaml; Bash

**Technical Software:** Git; AWS EC2; Spark; LaTeX; Excel; Tableau; Qualtrics

**Languages:** Near-native proficiency in Mandarin Chinese

**Interests:** Drums; Guitar; Running