Michael Lee

Chicago, IL, leemichaeljhATuchicagoDOTedu leemichaeljh.github.io

Education

University of Chicago *Chicago, IL, USA*
BA with Honors in Mathematics, GPA: 3.95/4.00 *Sept 2022 – present*

- Minor in Computer Science
- Inducted as junior to Phi Beta Kappa
- Dean's List 2022-2023, 2023-2024, Robert Maynard Hutchkins Scholar

Reading and Research

UChicago Mathematics REU *Chicago, IL, USA*
Apprentice program (1 year), Full program (2 years) *Summers 2023-2025*
Engaged in weekly discussions with mentor and fellow mentees and attended faculty lectures. Wrote an expository paper and delivered a participant talk. Papers can be found at leemichaeljh.github.io

- 2025 Notes: The Regularity and Rigidity of the Burgers' Equation (Mentor: David Bowman)
- 2024 Notes: Partial Regularity Theory of the Navier-Stokes equations (Mentor: Jincheng Yang)
- 2023 Notes: Leray-Hopf weak solutions to the Navier-Stokes equations (Mentor: DeVon Ingram)

UChicago Department of the Geophysical Sciences *Chicago, IL, USA*
Research Assistant: Machine Learning for Extreme Weather Event Estimation *Feb 2025 – Sept 2025*
Investigated effectiveness of PanguWeather machine learning model. Improved windowing and boundary in the polar region, under guidance of Alexander Wikner in Climate Extremes Theory and Data group.

University of Washington Data Science in Oceanography *Seattle, WA, USA*
Summer Program on Oceanographic Data Analysis *Aug 2024*
Analyzed spectral density of data from Global Drifter Program, ERA5, and MIMOC to find correlations between wind, mixed layer depth and strength of inertial oscillations.

Directed Reading Program *Chicago, IL, USA*
Independent study with graduate student *Fall 2023 - Spring 2024*
Gave presentation on the Prime Number Theorem via Complex Analysis, Elliptic Curves (Mentor: Alicia Lima)

Teaching Experience

Super Reader - Teaching Assistant, Reader - Grader *Fall 2023 - Summer 2025*
UChicago Department of Mathematics

- TA for single-variable analysis courses (MATH 16110, 16120, 16130): Held office hours and assisted with instructor-led discussions in class.
- Graded homeworks for multivariable analysis (MATH 20400, 20500) and linear algebra (MATH 19600).

Skills

Programming: Python, C, Git

Languages: English (native), Mandarin (fluent), German (intermediate)

Activities

- Violist in UChicago Symphony Orchestra since 2022, Principal Violist since 2025