Ethan Lu

ethanlu@stanford.edu | https://elu00.github.io

EDUCATION

AUG 2022-JUN 2027	PhD in Mathematics, **Stanford University** Advised by Jonathan Luk
AUG 2020-MAY 2022	Master of Science in Mathematics, **Carnegie Mellon University** Thesis: *A Probabilistic Analysis of Enhanced Dissipation* Advised by Gautam Iyer
AUG 2018-MAY 2022	Bachelor of Science, **Carnegie Mellon University** Major in Mathematical Sciences, Minor in Computer Science GPA: 4.0/4

AWARDS AND SCHOLARSHIPS

AUG 2022-JUN 2027	NSF GRFP
MAR 2021	2021 Goldwater Scholar
SEP 2021	Andrew Carnegie Society Scholar
MAY 2021	Roger N. Pedersen Award (CMU)
MAY 2020	Richard A. Moore Award (CMU)
DEC 2019, 2021	Putnam Exam Top 500

TEACHING AND WORK EXPERIENCE

1. Instructor for Math 382: Applied Math Qualifying Exam Seminar, Winter 2024, Stanford University.

2. Course assistant for Math 115: Functions of a Real Variable, Fall 2022/Spring 2023, Stanford University.

3. Teaching assistant for 21-237/238: Mathematical Studies Algebra I/II (honors), Fall 2021/Spring 2022, CMU.

4. Teaching assistant for 15-458: Discrete Differential Geometry, Spring 2021, CMU.

5. Tutor at University of Nevada, Reno Math Center (Fall 2016-Winter 2018).

6. Math Faculty at A-Star Math Camps, Santa Clara, CA (Jul-Aug 2017).

7. Quantitative Trading Intern at Susquehanna International Group (SIG) (Jun-Aug 2021).

8. Actuarial and Predictive Modeling Intern at Employers Insurance Co (Apr-Aug 2020).

PUBLICATIONS AND TALKS

1. *Using Bernoulli maps to accelerate mixing*
   Gautam Iyer, Ethan Lu, James Nolen.
   Quarterly of Applied Mathematics, American Mathematical Society (AMS), 2023. Crossref, doi:10.1090/qam/1668.

2. *Surfactant Dynamics from the Arnold Perspective*
   Ethan Lu, J. Jenkins, C. Lee, Y. Liu, D. Reed.
   SIAM Undergraduate Research Online, vol. 14, Society for Industrial & Applied Mathematics (SIAM), 2021. Crossref, doi:10.1137/20s1378144.

3. *Central Limit Theorems for Compound Paths on the 2-Dimensional Lattice*
   E. Fang, J. Jenkins, Z. Lee, D. Li, Ethan Lu, S. Miller, D. Salgado, J. Siktar
   Fibonacci Quart. vol 58 (2020), no. 3, pp. 208-225.
   https://arxiv.org/abs/1906.10645

4. *Invited talk* at **New Connections in Math 2021** (Duke, October 2021).

5. *Invited talk* at the **19th International Conference on Fibonacci Numbers** (July 2020).

6. CMU Undergraduate Poster Competition (May 2021).

Interests and Activities

Mathematics

- Mentor for the Stanford Math undergraduate directed reading program (DRP).
- Volunteer at the SMT (Stanford), CMIMC (CMU), PUMaC (Princeton), and HMMT (Harvard/MIT) high school math/programming competitions.
- Volunteer for the PA Regional Science Bowl and the Stanford Science Olympiad invitational.

Programming

- Member of Stanford ICPC team.
- Languages: C/C++, Python, LaTeX.
- Software: Cinema 4D, Vegas Pro, Adobe After Effects/Premier, Mathematica.

Other

- Badminton, skiing, and climbing.
- Super Smash Bros. Melee, Modern Tetris, and Speed Chess.
- PC building/mechanical keyboards.

Languages

English:	Native Speaker
Chinese:	Fluent