

Ethan Lu

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EDUCATION

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|-------------------|--|
| AUG 2022-CURRENT | PhD in Mathematics, Stanford University Advised by Jonathan Luk |
| AUG 2020-MAY 2022 | Master of Science in Mathematics, Carnegie Mellon University Thesis: <i>A Probabilistic Analysis of Enhanced Dissipation</i> 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

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| 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](https://doi.org/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](https://doi.org/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. Siktir
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

- Coach 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