

Thanh Le — CV

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I am a PhD student at *University of Nebraska-Lincoln*. My research interest is *Probabilistic Combinatorics*. My advisor is *Xavier Pérez Giménez*.

Education

- **University of Nebraska-Lincoln** **Lincoln, Nebraska, USA**
PhD in Mathematics *August 2022 - Expected 2027*
- **University of Nebraska-Lincoln** **Lincoln, Nebraska, USA**
M.S. in Mathematics *August 2022 - December 2023*
- **Fairfield University** **Fairfield, Connecticut, USA**
B.S. in Computer Science and Mathematics *2018 - 2022*

Honors and Awards

National.....

- *Ranked 193* (out of 2975 participants) at Putnam Math Competition 2021.
- *Third Prize* in Vietnam Mathematical Olympiad 2017.

Local.....

- Math Department's Outstanding Qualifying Exam (University of Nebraska-Lincoln, 2024).
- Graduated *summa cum laude* (with highest distinction) from Fairfield University (May 2022).
- Math Department's Award for Outstanding Achievement in Mathematics (Fairfield University, March 2022).
- Received Fairfield University Research and Travel Grant (travelling to Florence, Italy for exchange study, Fall 2019).

Research Experience

- **University of Nebraska-Lincoln** **Lincoln, NE**
Research Assistant *June 2024 - current*
 - I have been working with my advisor, Xavier, on Probabilistic Combinatorics. We are focusing on the existence of Hamilton cycles in random graphs.
 - Relevant coursework: Discrete Math (a year-long graduate sequence on Combinatorics), Probabilistic Combinatorics, Probability Theory.
- **Fairfield University** **Fairfield, CT**
Math Honors Capstone, Combinatorics *January 2022 - April 2022*
 - Worked, with supervision of Dr. Zhanar Berikkyzy, on the following conjecture: for any 6-coloring of \mathbb{Z}_p (p a prime number), there exists a rainbow solution for $x_1 + x_2 + x_3 = x_4 + x_5 + x_6$.
 - Presented the work at the Fairfield Math Research Symposium (April 2022).
- **EEG Memory Analysis Project – Fairfield University** **Fairfield, CT**
Research Assistant, Machine Learning *June 2021 - January 2022*
 - Worked with Drs. Danushka Bandara (Computer Science) and Jessica Karanian (Psychology).
 - We used Machine Learning to study EEG data taken from experiments on 20 subjects, with the goal of predicting the subjects' actions.
 - I presented the work at the Fairfield University Research Symposium (April 2022).

Teaching Experience

Instructor of Record.....

- Spring 2024: Math 101 (College Algebra), 1 section, at University of Nebraska-Lincoln (UNL)
- Fall 2023: Math 101 (College Algebra), 1 section, at UNL

Teaching Assistant.....

- Summer 2023: Math 107 (Calculus II) recitation, 1 section, at UNL
- Spring 2023: Math 107 (Calculus II) recitation, 2 sections, at UNL
- Fall 2022: Math 107 (Calculus II) recitation, 2 sections, at UNL
- Spring 2022: Machine Learning, at Fairfield University
- Fall 2021: Theory of Programming Languages, at Fairfield University

Outreach and Service

Selected.....

- **Nguyen Tat Thanh High School for Gifted Students** **Kon Tum, Vietnam**
Olympiad Math Teacher *July 2020, July 2022*
 - Taught Number Theory (Diophantine equation), Combinatorics (miscellaneous exercises).
 - Shared stories about learning olympiad Math, pursuing careers with Math, and studying abroad.
- **Hanoi Math Modeling Competition** **Hanoi, Vietnam**
Software Developer *June-October 2021*
 - Led the development of the website for Hanoi Math Modeling Competition.

Others.....

- Volunteer (tech help) at Nebraska Conference for Undergraduate Women in Mathematics (NCUWM) (at UNL, in 2023, 2024).
- Quiz Bowl moderator at UNL Math Day (in 2023, 2024).
- Secretary and Treasurer at Pi Mu Epsilon, Fairfield University Chapter (in 2021-2022).
- Grader at regional MathCounts competition (at Fairfield University, in 2019).

Talks

- "On the existence of Hamilton cycles with a periodic pattern in a random digraph with degree at least 2" (UNL Discrete Seminar, May 2025).
- "Thresholds in random graphs and the Kahn-Kalai Conjecture" (UNL Discrete Seminar, November 2024).

Conferences/Workshops Attended

- SLMath's summer school "Local Limits of Random Graph" (Paris-Saclay University, June 2025).
- Lake Michigan Workshop on Combinatorics and Graph Theory (UIC, April 2025).
- Lake Michigan Workshop on Combinatorics and Graph Theory (Western Michigan University, April 2024)
- AMS Central Sectional Meeting (Creighton University, October 2023)
- Blockchain Mathematics and Computing (VIASM, July 2021)

Professional Experience

- **VietESoft JSC** **Hanoi, Vietnam**
Software Engineer Intern *June 2020 - January 2021*
 - Worked on developments of outsourcing softwares using ASP.NET MVC.