

ZE FAN

45 Wyllys Avenue, Wesbox 90978 ◊ Middletown, CT 06459
(860) · 754 · 6384 ◊ zfan@wesleyan.edu

EDUCATION

Wesleyan University, Middletown, CT May 2026
Bachelor of Arts, GPA: 4.08/4.00
Major: Mathematics **Minor:** Economics

RESEARCH EXPERIENCES

- Research Assistant*, **School of Informatics, University of Edinburgh** Edinburgh, Scotland, UK July 2024 - Aug. 2024
- Conducted a theoretical computer science research on expressive power of programming language in graph traversal algorithms.
 - Authored a research paper accepted for presentation at the 41st IEEE International Conference on Data Engineering.
 - Paper title: *MITra: Populating Graph Traversal Algorithms*
- Research Fellow*, **College of Integrative Sciences, Wesleyan University**, Middletown, CT, USA June 2024 - July 2024
- Conducted research in algebraic number theory focusing on a generalization of Siegel's Lemma, culminating in a poster presentation at the program's final symposium.
 - Participated in weekly seminars aimed at enhancing academic writing and research communication skills.
 - Project title: *Sparse Vectors of Small Height Avoiding Hyperplanes*

ACADEMIC AWARDS

- Wesleyan University Robertson Prize** May 2024
- One person is awarded annually, for excellence in mathematics to a sophomore.
- 84th William Lowell Putnam Mathematical Competition** Dec. 2023
- In 84th William Lowell Putnam Mathematical Competition, 33 points out of 120 were scored, with a rank of #321.
- Wesleyan University Sherman Prize - Mathematics** May 2023
- Two people are awarded annually, one for excellence in first-year mathematics and the other for excellence in classics.
- Award of Excellence, Global Final of the S. -T. Yau High School Science Award (Mathematics)** Dec. 2020
- In the mathematics division, nine people are awarded annually, including one Gold Prize, one Silver Prize, three Bronze Prizes, and five Award of Excellence.
 - Award-winning thesis title: *Disjoint Cycles in Ordinary Multipartite Tournaments and Round-Robin Tournaments*.

EXTRACURRICULAR ACTIVITIES

- Teaching Assistant*, **Department of Mathematics, Wesleyan University**, Middletown, CT, USA Jan. 2023 - Present
- Supported instruction across five undergraduate math courses, including Real Analysis, Probability, Stochastic Processes, Linear Algebra, and Discrete Mathematics.
 - Graded assignments, prepared detailed solution manuals in \LaTeX , conducted weekly discussion sessions, and provided in-class support.
- Activity Organizer*, **Wesleyan Math Club, Wesleyan University** Middletown, CT, USA Jan. 2024 - Jan. 2025
- Helped organize student-led talks and math game nights to foster mathematical engagement outside of coursework.
 - Attended and faculty seminars on diverse topics in pure and applied mathematics.
- Member*, **Putnam Problem-Solving Group, Wesleyan University**, Middletown, CT, USA Sept. 2023 - Dec. 2023
- Attended weekly sessions focused on advanced problem-solving in algebra, combinatorics, and analysis.
 - Collaborated with peers to prepare for national mathematics competitions, including the Putnam Exam.

SKILLS AND LANGUAGES

Computer	Java, Python, C++, Standard ML, Wolfram Mathematica, SageMath, Stata, R, \LaTeX
Language	Mandarin (Primary fluency), English (Full professional fluency), French (Professional working proficiency)