

# ZE FAN

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Wesleyan University  
Department of Mathematics  
265 Church St., Middletown, CT  
United States

## EDUCATION

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### Wesleyan University, Middletown, CT

May 2026    **Bachelor of Arts**  
GPA: 4.10/4.00  
**Major:** Mathematics **Minor:** Economics

## RESEARCH EXPERIENCES

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5. Constructive and Stable Cartan–Dieudonné and Applications to Binary Quadratic Forms over Number Fields (joint with Han Li). Submitted, Oct. 2025.
4. The Lubin–Tate Deformation Theorem and the Morava  $E$ -theory. Expository, Sept. 2025. ([preprint](#))
3. Stable Regularity Lemmas and their Model-Theoretic Foundations. Expository, Apr. 2025. ([preprint](#))
2. Sparse Vectors of Small Height Avoiding Hyperplanes. Poster, July 2024. ([preprint](#))
1. Disjoint Cycles in Ordinary Multipartite Tournaments and Round-Robin Tournaments. High School, Dec. 2020. ([preprint](#))

## ACADEMIC AWARDS

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May 2025    **Wesleyan University Rae Shortt Prize**  
Awarded to a junior for excellence in mathematics.

May 2024    **Wesleyan University Robertson Prize**  
Awarded for excellence in mathematics to a sophomore.

May 2023    **Wesleyan University Sherman Prize-Mathematics**  
Awarded for excellence in first-year mathematics.

Dec. 2020    **Award of Excellence, Global Final of S.–T. Yau High School Science Award**  
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 paper: Paper [1](#).

## TALKS AND SEMINARS

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2. *A Constructive and Stable Cartan–Dieudonné Theorem for Binary Quadratic Forms*. Algebra Seminar, Wesleyan University, Sept. 26, 2025.
1. *Lubin–Tate Theorem and Construction of Morava  $E$ -Theory*. Participant Talks, University of Chicago math REU, Aug. 7, 2025. ([slides](#))

## SKILLS AND LANGUAGES

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**Programming**    Python; C/C++; Standard ML; R; Stata; SageMath  
**Languages**        Mandarin (primary); English (full professional); French (professional working).

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<sup>1</sup>Updated October 2, 2025