

Matthew Zhang

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EDUCATION

University of Michigan

B.S. in Mathematics and Computer Science, expected May 2029

Ann Arbor, MI

Fall 2025 – Present

- **Coursework:** Math 451 (Advanced Calculus I), A+; Math 566 (Combinatorial Theory), A+; Math 525 (Probability Theory), A; Math 493 (Honors Algebra I); EECS 281 (Data Structures & Algorithms), A; EECS 370 (Intro to Computer Organization); Math 596 (Analysis I); EECS 376 (Foundations of Computer Science); EECS 445 (Intro to Machine Learning)
- **Dual enrollment while in high school (2024 – 2025):** Math 285 (Multivariable and Vector Calculus), A+; Math 316 (Differential Equations), A; Physics 405 (Intermediate Electricity and Magnetism), A-

Stanford University

Summer Session

Stanford, CA

Summer 2023

- Linear Algebra and Multivariable Calculus, A+; Computer Abstraction

HONORS & AWARDS

- **Putnam Competition:** score 31/120, rank 404 of ~4,000 participants *2025*
- **CampusAI × MDC AI & Data Hackathon:** Winner, for NestMate *2026*
- **University of Michigan Undergraduate Math Competition:** 2nd place *2026*
- **USA Computing Olympiad (USACO):** Gold division *2025*
- **Y Combinator Startup School:** selected attendee, in-person event in San Francisco *2026*
- **Math Olympiads:** 5× AIME (best 11/15); AMC 10/12 Honor Roll (top 5%), Distinguished (top 1%) *2021 – 2025*
- **National Cyber League:** 3rd of 1,041 high schoolers; 18th of 8,487 total entrants *2024*
- **Physics Olympiad:** USAPhO Bronze Medalist; F=ma highest score 18/25 *2025*
- **National Science Bowl:** 1st place Regional; competed at the National Finals in Washington, DC *2024*
- **National Merit Scholarship Finalist** *2024 – 2025*

EXPERIENCE & LEADERSHIP

NestMate AI (nestmateai.com)

Mar. 2026 – Present

Co-Founder

Ann Arbor, MI

- Co-founded a live platform matching UMich students with compatible roommates and property owners
- Matches users by schedule, lifestyle, and commute; built with Next.js, TypeScript, FastAPI, Supabase, Leaflet
- Launched and operate the platform with one co-founder; planning expansion to additional campuses
- Partnered with a major Ann Arbor real estate company to bring its property listings onto the platform

Michigan Math Meet Club

Fall 2025 – Present

Head Problem Writer

University of Michigan

- Writing high school math competition problems across algebra, geometry, combinatorics, and number theory
- Wrote a significant portion of the problems for the 2026 Michigan Math Meet contest

RESEARCH

Geometric Optimization

Spring 2026 – Present

Independent research

- Studying which n -point configurations on the unit circle maximize width, the narrowest parallel strip enclosing all points; proved the optimal configuration for odd n and conjectured it for even n with partial progress

Langevin Dynamics and Markov Chain Monte Carlo

Summer 2024

Independent study with a university professor

- Studied Langevin dynamics and MCMC sampling methods, building the required background from scratch

Convex Tangrams

2022 – 2023

Independent; published in the journal Intelligence Planet (paper)

- Published a paper proving all convex shapes possible with a special Tangram, aided by a computer program

SKILLS & INTERESTS

Programming: Python, Java, JavaScript, TypeScript, C, C++

Tools: Git, Next.js, FastAPI, Supabase, $\text{\LaTeX}$

Languages: English (native), Chinese (reading proficiency)

Interests: Wikipedia, history, geography, crosswords and word games, piano (10+ years), whistling, skiing