

Yuanrui Zhao (Ray)

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EDUCATION

Yale University – B.S., Computer Science and Mathematics, Certificate in Data Science

Aug 2026 – May 2030

Relevant Coursework: Probability Theory, Discrete Mathematics

Activities: Yale Undergraduate Math Society, Yale Student Quantitative Finance Organization, Yale Undergraduate Hedge Fund Association (Analyst), Yale Computer Society (CourseTable Developer, Catalyst Program Member), Yale Undergraduate Net Impact Fellow

Eastlake High School – 4.0 GPA; National Merit Finalist; AP Scholar

Sep 2022 – Jun 2026

Relevant Coursework (Dual Enrollment at Bellevue College): Linear Algebra, Multivariable Calculus

HONORS & ACHIEVEMENTS

Mathematics: USA Mathematical Olympiad (USAMO) Qualifier (2025); USA Junior Mathematical Olympiad (USAJMO) Qualifier (2024); 5x American Invitational Mathematics Exam (AIME) Qualifier; 4x AMC 12 Distinction (top 5%); 2x AMC 10 Distinguished Honor Roll (top 1%); American Regions Mathematics League (ARML) 3rd Place Team (2025); Princeton University Mathematics Competition (PUMaC) 5th Place Team (2024); Stanford Math Tournament (SMT) Online 2nd Place Team (2023); Harvard-MIT Mathematics Tournament (HMMT) 15th Place Team (2025).

Programming: USA Computing Olympiad (USACO) Platinum (2025 certified, 2026 certified); Codeforces Candidate Master (1961 peak rating); LeetCode top 0.06% (2780 peak rating); 2x American Computer Science League (ACSL) Senior Division Finals Gold Medalist / Top Score Nationwide; 2x Andover Computing Open (TACO) 1st Place.

TECHNICAL & LEADERSHIP EXPERIENCE

Co-founder | Frostbyte Technologies

Sep 2024 – Present

Co-founded a nonprofit developing an autonomous sidewalk-deicing robot; integrated Raspberry Pi, sensors, GPS/RTC modules, and Google Coral TPU while reducing projected production cost below \$1,000 (80% less than comparable commercial products). Won Washington Samsung Solve for Tomorrow (\$12,000 prize package) and presented at the Gates Foundation.

President | Eastlake Computer Science Honor Society

Jun 2024 – Jun 2026

Organized club and meeting logistics for 100+ members; expanded membership 15% through acquisition of AI Club and Game Design Club. Founded and coached Eastlake's American Computer Science League (ACSL) team, doubling competition participation club-wide, advancing five students to the Senior Division Finals, and placing in the top 25% of teams in their first year.

Co-founder and Board Director | Inscight Education

Sep 2022 – Apr 2026

Co-founded a 501(c)(3) educational nonprofit; managed logistics, finances, outreach, and volunteer programming. Organized 15+ STEM library workshops and online programs reaching 350+ students across two Washington counties.

Head Coach | Christa McAuliffe Elementary Math Club

Sep 2024 – Mar 2026

Designed weekly math lessons for 40+ students; coached Math Is Cool competition teams to 2nd place (4th grade) and 3rd place (5th grade) at the Math Is Cool Championships in the most competitive division.

Lead Programmer | VEX Robotics Team 10K

Sep 2022 – Apr 2024

Programmed C++ autonomous and driver-control systems using PID control and odometry; won the 2023–24 Washington State Tournament and qualified for World Championships.

SELECTED PROGRAMS

Program in Mathematics for Young Scientists (PROMYS)

Jun 2025 – Aug 2025

Completed a selective six-week program in proof-based number theory for ~80 high school students from around the world; conducted an exploration lab on sums of squares and polygonal numbers, culminating in a research paper and presentation.

AwesomeMath Summer Program

Jul 2024 – Aug 2024

Completed two three-week olympiad-level courses in combinatorial arguments and computational geometry.

SKILLS

Mathematics: Combinatorics, probability, linear algebra, number theory, calculus, geometry, abstract algebra, proof writing

Programming: Python, C++, Java; algorithms and data structures; competitive programming; robotics programming