

Xueru (Zoey) Zhao

Irvine, CA, United States

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EDUCATION

University of California, Irvine — Irvine, CA

Expected Graduation: June 2029

B.S. in Mathematics (Intended)

Beijing AIDI International High School (WACE) — Beijing, China

RESEARCH EXPERIENCE

Undergraduate Mathematics Research

Advisor: Prof. Zhu

Nov 2025 – Present(ongoing)

- Study Łojasiewicz-type inequalities for multivariable polynomials near degenerate critical points.
- Analyze inequality behavior using structural and worst-direction analysis.
- Participate in weekly faculty research meetings and ongoing mathematical discussion.

Research Project (Supervised Study) — Cognitive & Behavioral Psychology

Supervisor: Prof. Robin A. Murphy, University of Oxford

Jul 2023 – Sep 2023

- Participated in a supervised research project examining the effects of perceived social isolation on adolescent cognition and behavior.
- Conducted guided literature review and explored research questions in cognitive&behavioral psychology.
- Engaged in academic discussions on learning, perception, and behavioral decision-making frameworks.

ACADEMIC PREPARATION

Coursework: Linear Algebra (Proof-Based) · Multivariable Calculus · Differential Equations · Introduction to Abstract Mathematics · Discrete Mathematics & Logic · Programming for Mathematical Computing · Intensive Writing: Argument & Research

Skills:

- Mathematics: Proof Writing · Asymptotic Reasoning · Structural Case Analysis · Mathematical Modeling
- Programming: Python · C++
- Research Methods: Literature Review · Conceptual Research Design · Academic Writing
- Research Tools: LaTeX

ATHLETICS

UCI Varsity Rowing — Team Member Sep 2025 – Present

- Train 6 days/week(5:00am-7:50pm); competed in 5 intercollegiate races (2k: 7:46).

LEADERSHIP & INITIATIVES

Student Government President Grades 10–12

- Led cafeteria oversight initiative improving safety and pricing transparency.
- Implemented campus-wide menstrual hygiene access policy.

Model United Nations (MUN) — Academic Leader Grades 11–12

- Organized school-wide conferences and coordinated academic programming.

1950 Public Welfare Society— Vice President Grades 11–12

- Organized disaster-relief fundraising and campus animal welfare initiative.

Founder — Debate / Competition Club Grades 12

- Founded debate organization promoting structured reasoning.