

ISAAC CHENG

Swarthmore College
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EDUCATION

Swarthmore College, Swarthmore, PA
B.A. Candidate, Mathematics, May 2028

Homeschooled, Nashville, TN

Graduated May 2024

GPA: 4.0; SAT: 800 Verbal / 800 Math

AP Tests: Calculus BC (5), Computer Sci. (5), Physics 1 (5), Chemistry (5), Biology (5)

Honors: National History Day, Top 10 Finalist, Individual Paper (2023)

National Merit Semifinalist (2024)

ACADEMIC PRESENTATIONS

Joint Mathematical Meetings, PME Contributed Session on Research by Undergraduates, “A combinatorial approach to the word problem for p -groups,” Seattle, WA, January 2025 (with K. Chutinan & A. Lee).

Swarthmore College Sigma Xi Poster Session, “A combinatorial approach to the word problem for p -groups,” Swarthmore, PA, September 2024 (with K. Chutinan & A. Lee).

EXPERIENCE

Jewish Middle School of Nashville, Nashville, TN

Math Teacher: Primary teacher and curriculum designer for school’s most advanced math class; teaching assistant in remedial, standard, and advanced math classes for fifth through eighth grades; spearheaded experimental elective on mathematical proof. January 2023 – May 2024

Program in Mathematics for Young Scientists (PROMYS), Boston University, Boston, MA

First-year student: Solved daily number theory problem sets; attended advanced lectures and mini-courses; participated in a group lab project on Fibonacci Numbers. July 2023 – August 2023

Second-year student: Studied Galois theory and discrete dynamical systems; attended advanced lectures and mini-courses; worked on research project in group theory. July 2024 – August 2024

Department of Computer Science, Washington University in St. Louis, St. Louis, MO

Research Intern: Worked under Professor Yevgeniy Vorobeychik; constructed and analyzed simulated social network to understand online polarization. June 2021 – October 2021, June 2022 – July 2022

Sforzando Web Designs, Nashville, TN

Founder: Have built about fifteen websites for local nonprofit organizations, friends, and family; both paid and volunteer work. June 2016 – Present

PERSONAL

Interests include reading, baroque music, and pickup basketball.