**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.