Serena An

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Education

- 2022 2026Massachusetts Institute of TechnologyCambridge, MABachelor of Science in Mathematics. GPA: 5.0.
Selected coursework: 18.102, 18.675, 18.676, 18.705, 18.725, 18.726, 18.905, 6.1010, 6.1210.
- 2021 2022National Security Language Initiative for Youth (NSLI-Y)Seoul, South KoreaTook a gap year to study abroad with the selective NSLI-Y Korean Academic Year Program.

Selected Awards

2023	Honorable Mention (Top 100) Putnam Mathematical Con	mpetition	Cambridge, MA
2021	Gold Medal European Girls' Mathematical Olympiad	Kutaisi,	Georgia (Online)
2019, 2020	MOP Participant Math Olympiad Summer Program		Pittsburgh, PA
2018	TEDx Speaker TEDxPioneerParkKids		Brookings, SD

Research Experience

2024	UMN Combinatorics and Algebra REU	Minneapolis, MN
	Studied Postnikov-Stanley polynomials under Shiyun Wang (final page)	per, arXiv).
	Studied quiver representations under Kayla Wright (final paper).	
2023	MIT Summer Program for Undergraduate Research	Cambridge, MA
	Studied flip graphs under Elisabeth Bullock (arXiv).	
2020	MIT PRIMES-USA	Online
	Studied Grothendieck polynomials under Adela Zhang (paper in Alge	braic Combinatorics).

Work Experience

2024 – Present	USA Deputy Leader European Girls' Mathematical Olympiad	Europe (Varies)		
	Coordinated olympiad papers and accompanied the USA EGMO team.			
2022 – Present	Teaching Assistant Math Olympiad Summer Program	Pittsburgh, PA		
	Graded students' olympiads and bridged the gap between instructor and student as an			
	approachable role model.			
2023 - 2025	Instructor MIT Global Teaching Labs South	Africa; Ghana; Bhutan		
	Helped direct South Africa, Ghana, and Bhutan's national math olympiad training camps.			
2021 - 2024	Math Director Athemath	Online		
	Directed the math component of Athemath, a program providing high-quality classes and			
	an empowering community for ambitious female and non-binary students.			
2016 - 2020	Founder and Instructor Brookings Math Circle	Brookings, SD		
	Taught 20 middle schoolers each week during the summer, wrote 100 pages of handouts			
	over five years, and helped the local MATHCOUNTS team consistently place 1st statewide.			