

Contact

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Honors-Awards

Class of '21 Award

Phi Beta Kappa

Commendation for Academic
Excellence, 2023-24

Commendation for Academic
Excellence, 2022-23

Commendation for Academic
Excellence, 2021-22

Riley Shahar

Mathematics PhD Student at the University of Pennsylvania
Philadelphia, Pennsylvania, United States

Summary

I am a PhD student in mathematics at the University of Pennsylvania. I am very excited about the interface of abstract mathematics and computer science, about working to create inclusive communities, and about teaching and learning more generally. She/they.

Experience

University of Pennsylvania

Doctoral Student

August 2024 - Present (1 year 9 months)

Philadelphia, Pennsylvania, United States

Canada/USA Mathcamp

Mentor

June 2025 - August 2025 (3 months)

Portland, Oregon, United States

Mentor- and RA-ed for Canada/USA Mathcamp, a summer math program for high schoolers.

Reed College

3 years 8 months

Student Research Fellow

July 2024 - August 2024 (2 months)

Portland, Oregon, United States

Working with Professors Angélica Osorno and Kyle Ormsby, we studied the combinatorics of saturated transfer systems on modular lattices.

Peer Tutor

January 2021 - August 2024 (3 years 8 months)

Portland, Oregon, United States

Tutored students in many CS and math courses at Reed through the Office of Academic Support

- CS Fundamentals I

- Intermediate CS Fundamentals I
- CS Fundamentals II
- Algorithms and Data Structures
- Computability and Complexity
- Operating Systems
- Programming Language Design and Implementation
- Calculus
- Introduction to Analysis
- Discrete Math
- Linear Algebra
- Abstract Algebra
- Topology
- Mathematics Junior Qual

Teaching Assistant

August 2021 - May 2024 (2 years 10 months)

Portland, Oregon, United States

Taught office hours and review sessions for many CS and math courses at Reed

- CS Fundamentals I: Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024
- Calculus: Spring 2024
- Computability and Complexity: Fall 2022, Spring 2024
- Linear Algebra: Fall 2023
- Programming Language Design and Implementation: Fall 2023
- Abstract Algebra: Spring 2023
- Operating Systems: Spring 2023
- Intermediate CS Fundamentals I: Fall 2022
- CS Fundamentals II: Spring 2022

Student Research Fellow

May 2022 - August 2022 (4 months)

Portland, Oregon, United States

Working with Professor Charlie McGuffey, I studied the competitive ratios of stack algorithms in general model caching.

University of Pennsylvania

Student Research Fellow

May 2023 - August 2023 (4 months)

Philadelphia, Pennsylvania, United States

Working with Professor Steve Zdancewic, I gave a novel semantics of linear logic internal to the subobject posets of monoid objects.

Parli Debate Cooperative

Instructor

June 2021 - August 2021 (3 months)

- Coached nine experienced high school students on advanced strategies and techniques in high school parliamentary debate
- Lectured on subjects including research skills, impromptu speaking, and rhetoric and persuasive communication
- Designed and implemented customized, individualized curricula and one-on-one drills for each student

Crystal Springs Uplands School

Head Debate Coach

October 2019 - May 2021 (1 year 8 months)

Hillsborough, California, United States

- Coached and taught students at a highly selective independent school from 6th to 12th grade
- Coordinated a peer mentorship program, focused on connecting marginalized students with mentors with similar experiences
- Managed a significant budget, including team supplies, tournament registration, and hiring third-party judges
- Interfaced between a strong student leadership team and the school administration
- Led the team from unranked in 2018-19 to ranked 11th nationally in parliamentary debate before I left

Point of Information

Instructor

July 2019 - August 2019 (2 months)

Berkeley, California, United States

- Coached 12 high school students in parliamentary debate
- Centered student-driven education as opposed to a traditional lecture model
- Taught each student to write arguments based on philosophical literature which they choose, researched, and utilized in the camp tournament

Education

University of Pennsylvania

Doctor of Philosophy - PhD, Mathematics · (August 2024 - May 2029)

Reed College

Bachelor's degree, Mathematics and Computer Science · (August 2020 - May 2024)

The Nueva School

High School Diploma · (August 2015 - June 2019)