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Education

UMass Amherst

Amherst, MA

Mathematics, Pure concentration. GPA: 4.0

Fall 2022 - Present, Expected graduation: Spring 2026

Relevant Coursework: Algebra I and II, Real and Complex Analysis (separate courses), Topology and Algebraic Topology, Lie Algebras, Representation Theory, Differential Geometry, Elliptic Curves, all at the graduate level. Carried out an independent study with professor Martina Rovelli in which I wrote up a brief introduction to monoidal categories and Morita (∞ -)categories.

Waltham High School

Waltham, MA

GPA: 5.1/5.3 weighted, SAT: 1580, ACT: 36

Fall 2018 - Spring 2022

Experience, Leadership, & Activities

Mathematics REU with Jenia Tevelev

Amherst, MA

Student Researcher

Summer 2024

- Participated in a summer research program with Jenia Tevelev, in which I wrote a program in Julia to generate and check through a large class of potential counterexamples to the Fulton-Faber conjecture about generators for the cone of curves of $\overline{M}_{0,n}$, arising from matroids augmented with curves
- Computations still running as of January 2025
- The database and further info can be found on my website at this link ([click here](#))

UMass Amherst Mathematics REU

Amherst, MA

Student Researcher

Summer 2023

- Participated in the 2023 Math/Stats department REU program, in which our team wrote a paper characterizing the nilpotence variety \mathcal{N} of the 2D superconformal Lie algebra $\mathfrak{scnf}(N)$ and the orbits of the action of $\mathfrak{scnf}_0(N)$ on \mathcal{N}
- This has applications to the physics of quantum field theory, particularly to theories of supersymmetry

Boy Scouts of America, Troop 250 Waltham

Waltham, MA

Patrol Leader, Quartermaster, Eagle Scout

October 2020 - June 2022

- Active Boy Scout since 1st grade
- Leading and managing activities and planning for my patrol
- Closely involved in planning and leadership for the troop as a whole, as well as organization of supplies
- Became an Eagle Scout in 2022
 - Culmination of efforts as a Boy Scout
 - Prepared, gathered materials and assistance, and led a team of volunteers to install 20 new signposts in Prospect Hill Park in Waltham, MA
 - Significantly developed leadership, organizational, and project management skills

Skills & Interests

Technical: Experience with Python and Julia scripting, and an interest in cybersecurity as a hobby. Involved from time to time in the UMass Cybersecurity Club, particularly with cryptography.

Language: Basic conversational French and Russian in addition to fluent English.

Employment: Working seasonally (whenever possible) as Assistant Park Ranger at Prospect Hill Park in Waltham, MA since summer 2022. Avid enjoyer of the outdoors.