Jason Eveleth

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EDUCATION

Brown University
Providence, RI — Anticipated Graduation 2023

Bachelor of Science candidate in Math-CS, GPA 3.8

Relevant Coursework — Introduction to Higher Mathematics I and II, Statistical Inference I, Applied Ordinary Differential Equations, Applied Partial Differential Equations I, Abstract Algebra, and Graph Theory.

Extracurricular — Brown Running Club, attended practices and meets.

Albany High School
Albany, NY — Graduated 2019

Valedictorian Advanced Regents Diploma with Honors awarded with Mastery in both Math & Science, and Mathematics, unweighted GPA 99.2

Awards — The Joseph Lewi Math Award; RPI Medal; Suburban Council Excellence in Leadership Award; NYSPHSAA Scholar Athlete, every season; National Honors Society; AP Scholar with Distinction, 10th, 11th, 12th grade, and National AP Scholar 12th grade.

SUNY University at Albany coursework — Honors Linear Algebra, Independent Study in Math, and Calculus of Several Variables. GPA 4.0.

MATH RESEARCH

National Institute of Standards and Technology Summer Undergraduate Research Fellowship (NIST SURF), *Research Assistant* *May 2021 to Present*

- Working on research project remotely with mentors Dr. Tony Kearsley and Dr. Joe Klobusicky in the Mathematical and Computational Science Division.
- Developing 2000+ lines of code to compute mean curvature flow on Voronoi diagrams by implementing Fortune's algorithm, Barzilai Borwein descent, conjugate gradinet descent and steepest gradient descent in C.
- Exploring nonlinear oprimization of for Voronoi diagrams, investigating optimizations' effects, and adding new features. Code on my github at jasoneveleth/voronoi2.

Vornoi Tesselations Research, *Research Assistant* *May 2020 to August 2020*

- Formal program was cancelled due to COVID-19, but performed research project remotely with Dr. Tony Kearsley and Dr. Joe Klobusicky in the Mathematical and Computational Science Division.
- Implementing Fortune's algorithm in Python to generate Voronoi diagrams.
- Investigated perimeter oprimization by calculating gradient descent, and investigated optimizations' effects. Code on my github at jasoneveleth/voronoi.

Brown Undergraduate Mathematics Projects (BUMP) Program, *Research Assistant Jul 2020 to Sep 2020*

- Researched repeating decimals and their periods as part of a 3 person team.
- Coded experiments to test our conjectures in Jupyter notebooks.
- Determined the length of the repeating decimal based on the prime factorization of the denominator.

TUTORING EXPERIENCE

Community Corps - Swearer Tutoring Enrichment in Math and Science, *Tutor* *Jan 2020 to May 2020*

- Tutored at local Hope High School twice a week. Taught 9th graders Algebra I, and how to use TI-84 graphing calculators.

COMMUNICATION AND LEADERSHIP

Competitive Running, *Captain* *Nov 2017 to May 2019*

- Captain for cross country, indoor track, and outdoor track, oversaw much of practice by organizing warmups, building morale, timing meets, and leading over 30 runners each season.

Trivia, *Captain* *Sep 2018 to April 2019*

- Captain for Masterminds, organized events and transportation to this monthly, interscholastic, and academic-trivia quiz bowl competition.

Key Club, *Vice President* *Sep 2018 to May 2019*

- Vice President for Key Club, organized biweekly meetings for 20 people, advertised for the club and service events, participated in community service, and attended regional meetings.

National Honors Society, *Vice President* *Sep 2018 to May 2019*

- Vice President for National Honors Society, organized meetings.

SKILLS AND INTERESTS

- Proficient in Python, LaTeX markup, C, Java, POSIX compliant shell, x86_64 assembly, zsh, bash, Microsoft Office, GIMP, iMovie, HTML, CSS, JavaScript, Markdown, Make, Jupyter notebooks, and Adobe Lightroom.
- Basic understanding of NumPy, SciPy, Julia, awk, and AppleScript.
- Interests: running, ultimate frisbee, hiking, minecraft, and vim.