

University of Vermont
 Department of Mathematics and Statistics
 Burlington, VT 05401
 The United States

Education	University of Vermont , Mathematical Sciences, Ph.D.	2020 - present
	University of Vermont , Mathematical Sciences, M.Sc.	2022
	Queens College, City University of New York , Mathematics, B.A.	2020
Internships	NASA Goddard Space Flight Center , Greenbelt, Maryland <i>Space Communications and Navigation (SCaN) Intern. Worked with Dr. Alan Hylton, lead temporal network research effort in a group of seven interns to model and study space networks. Work resulted in two conference publications.</i>	Summer 2022
	Icahan School of Medicine at Mount Sinai , New York, New York <i>Worked with Dr. Kevin Costa on the cultivation and functional testing of engineered cardiac tissue.</i>	2009 - 2010
	Mount Desert Island Biological Laboratory , Bar Harbor, Maine <i>Highschool research fellow. Worked with Dr. Hermann Haller to characterize the gene Kynurenine-3-monooxygenase (KMO) in zebrafish.</i>	Summer 2009
Research	Vermont Space Grant Consortium Fellowship <i>Funded twelve month research fellowship.</i>	2023 - 2024
	Interests: Matroids, positroids, cluster algebras, graph theory, and temporal networks	
Teaching	University of Vermont Math 019: Fundamentals of Calculus I <i>Instructor of record for two semesters of a first course in undergraduate calculus.</i>	2020 - 2021
	Math 020: Fundamentals of Calculus II <i>Instructor of record for four semesters of a second course in undergraduate calculus.</i>	2021 - 2023
	Math Help Sessions <i>Walk-in tutoring for undergraduate math courses.</i>	2020 - 2023
Workshops	2023 AMS Mathematics Research Community <i>Ricci Curvatures of Graphs and Applications to Data Science, May 28 - June 3, 2023.</i>	Summer 2023
	Graduate Research Workshop in Combinatorics (GRWC) <i>Two week summer workshop for graduate students on open research problems in combinatorics.</i>	
	University of Colorado, Denver	Summer 2022
	University of Wyoming	Summer 2023

Coursework **City University of New York Graduate Center**
Dimers: Combinatorics, Representation Theory and Physics Summer School,
August 14 - August 18, 2023

University of Vermont
Algebraic Combinatorics, Algebraic Geometry, Algebraic Topology, Analysis (Real, Complex, Measure Theory), Category Theory Elliptic Curves and Modular Forms, Extremal Graph Theory, Matroid and Polytope Theory, Probabilistic Methods in Combinatorics,, Spectral Graph Theory

Queens College, City University of New York
Abstract Algebra, Linear Algebra, Numerical Methods

Awards **Nam Sang Kil Scholarship in Mathematics**, University of Vermont
In recognition of the value of education as a path toward betterment of mankind, this scholarship is presented to an outstanding student in honor of Chairman Nam. \$500 award.

Arthur Sard Memorial Award, Queens College, CUNY
Presented to a graduating student for excellence in mathematics.

Relevant Skills **Coding**
C, LaTeX

Preprints & Publications *Positroids and graphs*, Jeremy Quail, Puck Rombach. *In preparation.*

Advances in Modeling Solar System Internet Structures and their Data Flows, Alan Hylton, Natalie Tsuei, Mark Ronnenberg, Jihun Hwang, Brendan Mallery, Jonathan Quartin, Colin Levaunt, and Jeremy Quail. In *2023 IEEE Aerospace Conference (forthcoming)*. IEEE, 2023.

Toward Time Synchronization in Delay Tolerant Network based Solar System Internetworking, Alan Hylton, Natalie Tsuei, Mark Ronnenberg, Jihun Hwang, Brendan Mallery, Jonathan Quartin, Colin Levaunt, Jeremy Quail, and Justin Curry. In *2023 IEEE Aerospace Conference (forthcoming)*. IEEE, 2023.