

EDUCATION	New York University, Courant Institute School (NYU)	New York, NY, USA
	<i>Ph.D. in Mathematics</i> • Advisor: Tristan Buckmaster • Research interests: PDEs, applied analysis, computer-assisted proofs • GPA: 4.00/4.00	2024 - 2029 (<i>expected</i>)
RESEARCH	Simon Fraser University (SFU)	Burnaby, BC, Canada
	<i>BSc in Mathematics (Honours First Class with Distinction)</i> • Thesis: Finite Element Approximation of the Modified Steklov-Maxwell Eigenproblem • Advisor: Nilima Nigam • Degree Award: Dean of Science Convocation Medal • GPA: 4.25/4.33	2020 - 2024
	Self-Similar Analysis and Computer-Assisted Proofs (NYU)	
	<i>Supervisor: Tristan Buckmaster</i> • Developing a computer-assisted proof of singularity formation in the Boussinesq equations, starting from a PINN approximation computed by Wang et al. (2025). • Using Codex to develop mathematical arguments, with Lean 4 checks helping identify missing assumptions and guide proof revisions. • Developing analytic estimates and numerical error bounds needed to validate the approximate solution.	January 2025 – <i>Present</i>
TEACHING	Recent Developments in the Analysis of Nonlinear Kinetic Equations (SFU)	
	<i>Supervisor: Weiran Sun</i> • Investigated kinetic Schauder estimates with applications to the Landau equation. • Studied regularity of solutions to a kinetic Fokker-Planck equation initial data that has a logarithmic modulus of continuity. • Proved a time-integrable logarithmic-type decay estimate for the fundamental solution of the constant-coefficients problem.	May 2024 – August 2024
	Spectral Geometry of the Steklov-Maxwell System (SFU)	
	<i>Supervisor: Nilima Nigam</i> • Analyzed theoretical and numerical properties of a Steklov-type eigenvalue problem for Maxwell's equations. • Compared conforming and non-conforming finite elements in computing the Steklov-Maxwell spectrum. • Synthesized findings into a comprehensive undergraduate thesis.	May 2023 – December 2023
TEACHING	MATH-UA 328: Honors Analysis I (NYU)	
	<i>Teaching Assistant</i>	September 2026 - December 2026
	MATH-UA 329: Honors Analysis II (NYU)	
	<i>Teaching Assistant</i>	January 2026 - May 2026
	Complex Variables Written Exam Workshop (NYU)	
	<i>Workshop Leader</i>	December 2025 - May 2026
	MATH-UA 131: Mathematics for Economics I (NYU)	
TEACHING	<i>Teaching Assistant</i>	September 2025 - December 2025
	MATH 150: Calculus I with Review (SFU)	
	<i>Calc Connect Peer Mentor (Volunteer)</i>	September 2022 - April 2024
	MATH 322: Complex Variables (SFU)	
	<i>Teaching Assistant (Only grading and quiz design)</i>	September 2024 - December 2024

SELECTED AWARDS	• SFU Math 2023 Undergraduate Research Prize (SFU) August 2024 <i>Given in recognition of excellence in mathematical research at the undergraduate level.</i> • Dean of Science Convocation Medal (SFU) June 2024 <i>Awarded by the Dean of Science to one graduating student whose grades put them in the top five per cent of their class.</i> • NSERC Undergraduate Student Research Award (SFU) March 2024 <i>Grant from the Natural Sciences and Engineering Research Council of Canada (NSERC).</i> • Department of Mathematics Award (SFU) October 2023 <i>Given to students who are passionate about their studies and make positive contributions to the SFU community.</i> • Scotiabank Student Scholarship in the Faculty of Science (SFU) October 2023 <i>Granted to a student who exemplifies the aspects of a well-rounded student scholar.</i> • NSERC Undergraduate Student Research Award (SFU) March 2023 • Dr. John Abreu Memorial Award in Mathematics (SFU) February 2023 <i>Awarded to students who demonstrate a passion for their studies and community service.</i>
ACTIVITIES	Courant Association of Math PhDs (CAMP) (NYU) <i>President</i> September 2026 - <i>Present</i> Student Analysis Seminar (NYU) <i>Co-founder & Co-organizer</i> September 2025 - <i>Present</i> Courant Association of Math PhDs (CAMP) (NYU) <i>Vice President</i> September 2025 - August 2026 NSF-FRG Summer School on Fluids and Computer Assisted Proofs (Princeton University) <i>Participant</i> August 2025 Courant DEI Reading and Outreach Group (NYU) <i>Discussion Leader</i> November 2024 CECM Computational Math Day (SFU) <i>Participant</i> May 2023
COURSES AND SKILLS	Coursework: Measure Theory, Functional Analysis, Complex Analysis, Partial Differential Equations, Linear Algebra, Fluid Dynamics, Topology, Dynamical Systems, Galois Theory, Group Theory, Commutative Algebra and Algebraic Geometry. Programming: LaTeX, Python, MATLAB, Maple, FreeFem++