

EDUCATION

Msc. in Mathematics, University of Toronto	September 2024 - September 2025
<ul style="list-style-type: none"> Selected coursework: Symplectic geometry, Ergodic theory 	
BSc. in Mathematics with High Distinction, University of Toronto	September 2020 - April 2024
<ul style="list-style-type: none"> CGPA: 3.77, Average: 88.2% Selected coursework: Real Analysis, Complex Analysis, Differential Topology, Partial Differential Equations, Abstract Algebra, Teichmüller Theory, Riemannian Geometry 	

RESEARCH PROJECTS

Commensurability Classes of Infinite Type Surfaces	May 2023 - present
<ul style="list-style-type: none"> An ongoing project studying the existence of minimal elements in the commensurability classes of infinite type surfaces with countable, stable end spaces This work was supported by the NSERC USRA A draft is available here: Supervisor: Kasra Rafi 	
Dimension Drop for Limit Sets of Cocompact Subgroups of $PSL(2, \mathbb{R})$	May 2024 - present
<ul style="list-style-type: none"> An ongoing project in homogenous dynamics studying dimension drop estimates for the quotient of Lie groups by a convex cocompact subgroup Supervisor: Wenyu Pan 	
Boundary Integral Equations with Random Walks and Reinforcement Learning	July 2022 - August 2022
<ul style="list-style-type: none"> Worked with three other undergraduates in the Fields Undergraduate Summer Research Program to study novel Monte Carlo methods for solving partial differential equations on convex domains Assisted in the creation of a computer program implementing our method to successfully solve Laplace's equation on convex domains Supervisors: Adam Stinchcombe & Mihai Nica 	

AWARDS & SCHOLARSHIPS

Isabel C. Warne Fellowship	September 2024 (\$650)
<ul style="list-style-type: none"> Awarded at the discretion of the University College Scholarship Committee on the basis of academic merit and community involvement to a student pursuing graduate studies 	
The Galois Awards in Mathematics	September 2022 (\$3000), April 2023 (\$1000) April 2024 (\$1000)
<ul style="list-style-type: none"> Awarded at the discretion of the University College Scholarship Committee to a University College student in the Mathematics Specialist on the basis of exemplary scholastic achievement in mathematics 	
University of Toronto Student Leadership Award	February 2024
<ul style="list-style-type: none"> Awarded at the discretion of the University of Toronto Faculty of Arts and Science on the basis of outstanding community involvement and leadership 	
University of Toronto Women's Association Scholarship in Earth Sciences	October 2023 (\$3000)
<ul style="list-style-type: none"> Awarded on the basis of academic merit and financial need to a woman enrolled in a program in the earth sciences 	
National Sciences and Engineering Research Council	May 2023 (\$8000)
<ul style="list-style-type: none"> The NSERC Undergraduate Student Research Award is awarded on the basis of academic merit to fund a student research project under the supervision of a professor 	
The Fields Institute Undergraduate Summer Research Stipend	July 2022 (\$4000)
<ul style="list-style-type: none"> Awarded to all students accepted into The Fields Undergraduate Summer Research Program to cover travel and on-site expenses associated with the program 	

TEACHING ASSISTANTSHIPS

Teaching assistant responsibilities include grading problems sets and exams, preparing and teaching weekly tutorials, and hosting weekly office hours. The Math Learning Centre is a drop-in space for first-year students to get 1-on-1 tutoring from TAs.

MAT157Y1: Analysis I	September 2024 - April 2025
Math Learning Centre	September 2024 - December 2024
Preparing for University Mathematics Program	July 2024 - August 2024
MAT157Y1: Analysis I	September 2022 - April 2024
MAT223H1: Linear Algebra I	September 2022 - April 2023

COMMUNITY INVOLVEMENT

Directed Reading Program Mentor January 2025 - April 2025

- Organizing a reading group for 4-6 undergraduate students studying the geometry of hyperbolic surfaces and 3-manifolds
- A more detailed project description can be found here: [DRP Summary](#)

Association for Women in Mathematics Chapter President July 2023 - July 2024

- Led a team of seven to organize academic and social initiatives aimed at supporting women in mathematics at the University of Toronto

Canadian Undergraduate Mathematics Conference President January 2023 - June 2023

- Led a team of 10 undergraduates working in conjunction with the UofT Mathematics Department to host the largest CUMC to date at 177 attendees
- Coordinated eight keynote lecturers, four academic seminars, four social events, and over 80 student talks, and organized bursaries to reducing financial barriers of attendance for students from underrepresented groups

University of Toronto Mathematics Student Union President April 2022 - April 2023

- Led a team of six executives to provide academic and social enrichment to mathematics students at Uoft
- Initiatives included academic talks and panels, game and movie nights, mentorship programs, and the organization of a regular undergraduate colloquium

Mathematics Department First Year Orientation September 2021, September 2022, September 2023

- Presented an overview of mathematics courses and spoke on a panel dedicated to helping thousands of incoming first-year students at the University of Toronto navigate the first-year mathematics course offerings

University of Toronto Mathematics Student Union VP of Communications April 2021 - April 2022

- Elected to an executive position in the Mathematics Student Union to manage communications between the Mathematics Union and undergraduate mathematics students

Mathematics Department Intramural Soccer Team September 2021 - December 2022

- Co-captain and starting line centre-back instrumental in leading the team to back-to-back championship seasons in Fall 2021 and Fall 2022

TALKS

Ontario Graduate Mathematics Conference June 2024

- "Commensurability Classes of Infinite Type Surfaces", a research talk providing an overview of preliminary results relating to the existence of minimal elements of commensurability classes

Canadian Undergraduate Mathematics Conference July 2022, June 2023

- "Pants!" (2023), an expository talk in hyperbolic geometry outlining the pants decomposition of surfaces
- "The Nash Embedding Theorems for Tori in 3-Space" (2022), an expository talk on the Nash Embedding Theorem and its application to the conformal embedding of a torus into \mathbb{R}^3

Canadian Mathematical Society Annual Summer Conference June 2022, June 2023

- "Adventures in Geometric Topology: An Introduction to the Mapping Class Group" (2023), an expository talk providing a pictorial introduction to select topics in geometric group theory
- "Winning Strategies for the Region Unknotting Game" (2022), an expository talk outlining results of paper: Brown, et al. "The Region Unknotting Game." *Mathematics Magazine*, vol.90, no.5, 2017, pp.323–37.

ADDITIONAL WORK EXPERIENCE & VOLUNTEERING

Extraordinary Education Centre Competitive Debate Teacher October 2019 - June 2024

- Senior debate teacher at the top academy in the country coaching students through elite debate opportunities including national and international championships, and Team Canada Debate tryouts

Starbucks Coffee Company Barista July 2018 - August 2024

- Highly proficient barista accustomed to meeting customer needs in a fast-paced and detail oriented environment

Debate Community Volunteering 2018 - 2024

- Several debate judging appointments including Canadian Student Debating Federation National Championships, Team Canada Debate National Team Tryouts, and world championships at the high school and university level
- Organized four competitive high school debate tournaments in both online and in-person formats