

Samuel P. Dumas

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Education

Honours Bachelor of Science

2020-2025 (Expected)

University of Toronto. Mathematics Major, Biology Minor, and Science and Society Minor
Vic One Student (Schawlow Stream)

Awards

R. K. Arnold Scholarship

August 2024

Awarded to a student with an overall A standing in a Third Year that included courses in Mathematics or Science.

NSERC USRA

May 2024

One of six Natural Sciences and Engineering Research Council of Canada undergraduate student research awards within the Department of Ecology and Evolutionary Biology at the University of Toronto.

National Indicium Conference 2023 (Third Place)

August 2023

Ranked third out of ten at the STEM Fellowship's national Indicium conference. The top three places at the national conference were granted the opportunity to have the manuscript of their project published in the STEM Fellowship's journal.

NSERC USRA

May 2023

One of six Natural Sciences and Engineering Research Council of Canada undergraduate student research awards within the Department of Ecology and Evolutionary Biology at the University of Toronto.

DeLury Teaching Assistant Award

May 2023

One of three teaching awards within the Department of Mathematics at the University of Toronto, to highlight the excellence of undergraduate/graduate teaching assistants.

UTSG Indicium 2023 (First Place)

May 2023

Awarded to the top performing team at STEM Fellowship's UTSG campus Indicium conference. As the first-place team, we were granted the opportunity to present our work at the national Indicium conference.

Research Experience

Research Assistant

September 2024 - Present

Spawner-recruit modelling of salmon population dynamics. Department of Ecology and Evolutionary Biology, University of Toronto. Supervised by Dr. Marty Krkosek.

Research Assistant

May 2023 - Present

Inclusive collaboration via class preparation. Department of Mathematics, University of Toronto. Supervised by Dr. Camelia Karimi-anpour.

Research Assistant

May 2024 - August 2024

Understanding the impact of vector diversity on vector-borne diseases under predation. Department of Ecology and Evolutionary Biology, University of Toronto. Supervised by Dr. Nicole Mideo (Funded by NSERC USRA).

Research Assistant

May 2023 - April 2024

How do depth and water chemistry influence diversity and community composition in stratified stormwater ponds? Department of Ecology and Evolutionary Biology, University of Toronto. Supervised by Dr. Donald Jackson (Funded by NSERC USRA).

Research Assistant

January 2023 - August 2023

Automatization of microbial cultures in deepwell plates for strain characterization. Department of Chemical Engineering and Applied Chemistry, University of Toronto. Supervised by Mauricio Garcia Benitez (Through STEM Fellowship's Indicium).

Teaching Experience

Head Teaching Assistant Linear Algebra for Engineers (MAT188), Department of Mathematics, University of Toronto.	Fall 2024
Tutorial Teaching Assistant Calculus II for Engineers (MAT187), Department of Mathematics, University of Toronto.	Winter 2023, Winter 2024
Lecture Teaching Assistant Linear Algebra I (MAT223), Department of Mathematics, University of Toronto.	Winter 2024
Tutorial Teaching Assistant Linear Algebra for Engineers (MAT188), Department of Mathematics, University of Toronto.	Fall 2022, Fall 2023

Professional Experience

Course Developer Linear Algebra for Engineers (MAT188), Department of Mathematics, University of Toronto.	May 2023 - Present
Mentor Vic One Mentor (Schawlow Stream), Victoria College, University of Toronto.	September 2021 - April 2022

Publications

Dumas S, Wang C, Choo C, Ouyang C. *Automatization of microbial cultures in deepwell plates for strain characterization*. STEM Fellowship Journal. 2024;9(2). [To be published in December 2024]

Conferences and Talks

ACEG 2024 <i>Inclusive collaboration via class preparation</i> . Department of Mathematics, University of Toronto.	June 2024
A&S Teaching and Learning <i>Standard-based Grading in First Year Math Courses</i> . Department of Mathematics, University of Toronto.	May 2024
STEM Fellowship's Indiciium <i>Automatization of microbial cultures in deepwell plates for strain characterization</i> . Department of Chemical Engineering and Applied Chemistry, University of Toronto.	May 2023, August 2023