# KYLE BOWER

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#### **EDUCATION**

University of Toronto Sep 2018 – Jun 2023 Doctor of Philosophy, Mathematics University of Toronto Sep 2017 - Aug 2018 Master of Science, Mathematics University of British Columbia Sep 2013 – Apr 2017 Bachelor of Science, Honours Physics and Mathematics

#### WORK EXPERIENCE

## **Head Graduate Teaching Assistant**

Sep 2017 – Present

University of Toronto

Toronto, ON

- · Developed a script to automatically assign 1,500+ students to tutorial groups. (Python)
- · Mentored 100+ students each term in weekly tutorials, held office hours, invigilated exams, and graded tests for undergraduate math courses.
- · Led orientation and regular training for aspiring and new teaching assistants.

## Cryptanalyst Summer Intern

May 2017 - Aug 2017

Communications Security Establishment

Ottawa, ON

- · Performed cryptologic research, designed, developed, assessed, and attacked cryptographic algorithms and protocols to support Government of Canada Intelligence and Cyber Defense requirements.
- · Attended the Selected Areas in Cryptography Summer School at the University of Ottawa to learn about symmetric key, public key, and post-quantum cryptography.

## Undergraduate Student Researcher

May 2016 – Aug 2016

Natural Sciences and Engineering Research Council of Canada

Vancouver, BC

- · Conducted independent research on the Min protein system involved in bacterial cell division under the supervision of Dr. Eric Cytrynbaum.
- · Simulated cell-scale biochemical reactions to capture the natural stochasticity of a biological cell. (Smoldvn)
- · Employed numerical methods to solve a system of partial differential equations that described the biochemical reactions occurring in the cell. (MATLAB/GNU Octave)

# Undergraduate Teaching Assistant

Sep 2015 – Apr 2017

University of British Columbia

Vancouver, BC

· Invigilated exams and graded tests for undergraduate math courses.

## Lifeguard/Swim Instructor

Nov 2013 – Apr 2017

City of Richmond

Richmond, BC

- · Supervised patrons to ensure a safe and enjoyable aquatic environment.
- · Taught swimming and water safety to students of all ages and abilities.

#### TECHNICAL SKILLS

Experience with Python, MATLAB, LaTeX, UNIX, Linux, GitHub.