# KYLE BOWER.

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#### **EDUCATION**

University of Toronto

Doctor of Philosophy, Mathematics

University of Toronto

Master of Science, Mathematics

University of British Columbia

Bachelor of Science, Honours Physics and Mathematics

Sep 2018 – Apr 2023

Sep 2017 – Aug 2018

Sep 2013 – May 2017

#### WORK EXPERIENCE

## **Head Graduate Teaching Assistant**

University of Toronto Toronto, ON

- · Developed a script to automatically assign 1,500+ students to tutorial sections. (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

Communications Security Establishment

May 2017 – Aug 2017 *Ottawa*, *ON* 

Sep 2017 – Present

- · 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

Natural Sciences and Engineering Research Council of Canada

May 2016 – Aug 2016Vancouver, 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. (Smoldyn)
- · 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.

## ${\bf Lifeguard/Swim\ Instructor}$

City of Richmond

Nov 2013 – Apr 2017Richmond, BC

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

### TECHNICAL STRENGTHS

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