

# Blair Laurence Bilodeau

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## EDUCATION

**University of Toronto, PhD, Statistics**  
 Advisor: Daniel Roy

Sept 2018 – Present

**Western University**, Honours BSc, Financial Modelling  
GPA: 3.97 / 4.00

Sept 2014 – Apr 2018

## RESEARCH GRANTS

|  |             |
|--|-------------|
| NSERC Michael Smith Foreign Study Supplement: \$6,000                                  | 2020        |
| NSERC Alexander Graham Bell Canada Graduate Scholarship – Doctoral: \$105,000          | 2019 – 2022 |
| NSERC Alexander Graham Bell Canada Graduate Scholarship – Master’s: \$17,500           | 2018 – 2019 |
| Queen Elizabeth II Graduate Scholarship in Science and Technology: \$15,000 (Declined) | 2018 – 2019 |
| NSERC Undergraduate Student Research Award: \$4,500                                    | 2018        |
| NSERC Undergraduate Student Research Award: \$4,500                                    | 2017        |

## HONOURS AND AWARDS

|   |             |
|---|-------------|
| Department of Statistical Sciences Student Ambassador Award | 2020        |
| New York Academy of Sciences ML Symposium Best Poster Award | 2020        |
| E.F. Burton and F.W. Burton Graduate Scholarship            | 2018        |
| Robert and Ruth Lumsden Scholarships in Science             | 2017        |
| Borwein Memorial Prize for top grade in Analysis I          | 2017        |
| Western University Continuing Admission Scholarship         | 2014 – 2018 |

## RESEARCH POSITIONS

**Vector Institute, Toronto, Ontario**  
*Graduate Researcher*

Jan 2019 – Present  
Advisor: Daniel Roy

Studying generalization guarantees for sequential prediction. Current project focuses on non-Lipschitz loss, data-dependent regret bounds, and dimension-free results.

## Western University

May – Aug 2018

*Undergraduate Researcher*

Advisor: David Stanford

Provided the first characterization of the effect on high priority customers from introducing a delay period for low priority customers in the M/G/1 accumulating priority queue.

## Western University

May – Aug 2017

*Undergraduate Researcher*

Advisor: David Stanford

Developed a Python simulation model of the internal medicine ward at London's University Hospital to study physician-nurse collaboration efficiency.

## RESEARCH VISITS

**Institute for Advanced Study, Princeton, New Jersey**

Jan – Mar 2020

Program: *Special Year on Optimization, Statistics, and Machine Learning*

**Simons Institute for Theoretical Computing**, University of California, Berkeley

July 2019

Program: *Foundations of Deep Learning*

- [2] B. Bilodeau\*, D.J. Foster, D.M. Roy. (2020). **Improved bounds on minimax regret under logarithmic loss via self-concordance.** *In submission.*
- [1] B. Bilodeau\*, D.A. Stanford. (2020). **Average waiting times in the two-class M/G/1 delayed accumulating priority queue.** *Submitted to Operations Research for Healthcare.*

## REFEREED PUBLICATIONS

- [1] B. Bilodeau\*, D.A. Stanford, M. Goldszmidt, A. Appleton. (2019). **Simulated co-location of patients admitted to an inpatient internal medicine teaching unit: Potential impacts on efficiency and physician-nurse collaboration.** *INFOR: Information Systems and Operational Research.*

## INVITED TALKS

\*Event held virtually due to COVID-19

**Workshop on efficient literature reviews using Python.**

\*Canadian Statistics Student Conference, Ottawa, Ontario.

May 2020

## CONTRIBUTED TALKS

**Improved bounds on minimax regret under logarithmic loss via self-concordance.**

\*New York Academy of Sciences ML Symposium, New York City, New York. Poster.

Mar 2020

**Average waiting times in the two-class M/G/1 delayed accumulating priority queue.**

Canadian Queueing Conference, Toronto, Ontario. Oral.

Aug 2019

Southwestern Ontario Graduate Math and Stats Conference, Guelph, Ontario. Oral.

June 2019

Canadian Operational Research Society Annual Meeting, Saskatoon, Saskatchewan. Oral.

May 2019

**Simulated co-location of patients admitted to an inpatient internal medicine teaching unit.**

Canadian Queueing Conference, Edmonton, Alberta. Oral.

Aug 2018

EURO Operational Research Applied to Health Services Annual Meeting, Oslo, Norway. Oral.

July 2018

## TEACHING POSITIONS

**University of Toronto***Course Instructor*

STA347: Probability Theory

Summer 2020

*Head Teaching Assistant*

STA442: Methods of Applied Statistics

Fall 2019

STA261: Probability and Statistics II

Summer 2019

*Teaching Assistant*

STA257: Probability and Statistics I

Fall 2019

STA457: Time Series Analysis

Winter 2019

STA355: Theory of Statistical Practice

Winter 2019

STA347: Probability Theory

Fall 2018

ACT230: Mathematics of Finance for Non-Actuaries

Fall 2018

## VOLUNTEER POSITIONS

**Statistics Graduate Student Association, University of Toronto**

Sept 2019 – Aug 2020

*Treasurer*

PROFESSIONAL POSITIONS

**Canada Life Insurance, London, Ontario**  
*Risk Research Intern*

May – Aug 2016

**Bell Canada, London, Ontario**  
*Data Analyst Intern*

May – Aug 2015

**Ontario Hockey Federation, London, Ontario**  
*Level 3 Ice Hockey Referee*

Sept 2010 – Apr 2017