

# Blair Laurence Bilodeau

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## EDUCATION

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

Sept 2018 – Present

**University of Western Ontario, 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

## RESEARCH POSITIONS

**Vector Institute, Toronto, Ontario**  
*Doctoral 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.

**University of Western Ontario**  
*Undergraduate Researcher*

May – Aug 2018  
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.

**University of Western Ontario**  
*Undergraduate Researcher*

May – Aug 2017  
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  
Program: *Special Year on Optimization, Statistics, and Machine Learning*

Jan – Mar 2020

**Simons Institute for Theoretical Computing**, University of California, Berkeley  
Program: *Foundations of Deep Learning*

July 2019

- [2] B. Bilodeau\*, D.J. Foster, D.M. Roy. (2020). **Improved bounds on minimax regret under logarithmic loss via self-concordance.** *Submitted to International Conference on Machine Learning.*
- [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

##### **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.**

Department of Statistical Sciences Graduate Research Day, University of Toronto. Oral.

Apr 2020

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

#### PROFESSIONAL POSITIONS

##### **Canada Life Insurance, London, Ontario**

May – Aug 2016

*Risk Research Intern*

##### **Bell Canada, London, Ontario**

May – Aug 2015

*Data Analyst Intern*

##### **Ontario Hockey Federation, London, Ontario**

Sept 2010 – Apr 2017

*Level 3 Ice Hockey Referee*

#### 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

HONOURS AND AWARDS

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

University of Western Ontario Continuing Admission Scholarship

2014 – 2018

ACADEMIC SERVICE

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

Sept 2019 – Aug 2020

*Treasurer*