

# Blair Laurence Bilodeau

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## EDUCATION

**PhD, Statistics**, University of Toronto  
Supervisor: Dr. Daniel Roy

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

## RESEARCH GRANTS

<b>NSERC Alexander Graham Bell Canada Graduate Scholarship – Doctoral: \$105,000</b>	<b>2019 – 2022</b>
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<b>NSERC Alexander Graham Bell Canada Graduate Scholarship – Master’s: \$17,500</b>	<b>2018 – 2019</b>
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<b>Queen Elizabeth II Graduate Scholarship in Science and Technology: \$15,000 (Declined)</b>	2018 – 2019
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**NSERC Undergraduate Student Research Award: \$4,500** 2018

**NSERC Undergraduate Student Research Award: \$4,500** 2017

## RESEARCH POSITIONS

**Doctoral Researcher**, University of Toronto & Vector Institute  
Supervisor: Dr. Daniel Roy

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

**Undergraduate Researcher**, University of Western Ontario May – Aug 2018

Supervisor: Dr. David Stanford

- Studied the recently introduced Delayed Accumulating Priority Queue. Derived the average waiting time for high priority customers in this regime and an approximation method for the waiting time distribution.

**Undergraduate Researcher**, University of Western Ontario May – Aug 2017

Supervisor: Dr. David Stanford

- Developed a Python simulation model of the internal medicine ward at London's University Hospital to study physician-nurse collaboration efficiency, and proposed two novel changes which are to be implemented in a trial by the hospital.

## 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*

**PREPRINTS**

2. **B.L. Bilodeau**, D.A. Stanford. (2019). *The average waiting time for both classes in a delayed Accumulating Priority Queue.*

## REFEREED PUBLICATIONS

1. **B.L. 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.

## CONFERENCE PRESENTATIONS

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*The average waiting time for both classes in a delayed Accumulating Priority Queue.*

**Canadian Queueing Conf. (CanQueue)**, Toronto, Ontario. Oral. Aug 2019

**Southwestern Ontario Graduate Math and Stats Conf. (SOGMSC)**, Guelph, Ontario. Oral. June 2019

**Canadian Operational Research Society Ann. Conf. (CORS)**, Saskatoon, Saskatchewan. Oral. May 2019

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

**Canadian Queueing Conf. (CanQueue)**, Edmonton, Alberta. Oral. Aug 2018

**Conf. of Operations Research Applied to Health Services (ORAHS)**, Oslo, Norway. Oral. July 2018

## PROFESSIONAL POSITIONS

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**Risk Research Intern**, Canada Life Insurance, London, Ontario May – Aug 2016

- Performed statistical analysis for a major mortality study on life-contingent annuities.

**Data Analyst Intern**, Bell Canada, London, Ontario May – Aug 2015

- Predicted construction milestones from historical data for financial planning purposes.

**Level 3 Ice Hockey Referee**, Ontario Hockey Federation, London, Ontario Sept 2010 – Apr 2017

## TEACHING POSITIONS

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**Head Teaching Assistant**, University of Toronto

STA442: Methods of Applied Statistics Fall 2019

STA261: Probability and Statistics II Summer 2019

**Teaching Assistant**, University of Toronto

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

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University of Toronto

**E.F. Burton and F.W. Burton Graduate Scholarship** 2018

University of Western Ontario

**Robert and Ruth Lumsden Scholarships in Science** 2017

**Borwein Memorial Prize for top grade in Analysis I** 2017

**Continuing Admission Scholarship** 2014 – 2018

## ACADEMIC SERVICE

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**Treasurer**, Statistics Graduate Student Association, University of Toronto Sept 2019 – Aug 2020