

# Blair Laurence Bilodeau

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M5H 4E6

## EDUCATION

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**PhD, Statistics**, University of Toronto 2018 – Present  
Supervisor: Dr. Daniel Roy  
**Honours BSc, Financial Modelling**, University of Western Ontario 2014 – 2018  
GPA: 3.97 / 4.00

## RESEARCH GRANTS

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**NSERC Postgraduate Scholarships – Doctoral**: \$63,000 2019 – 2022  
**NSERC Canada Graduate Scholarships – Master’s**: \$17,500 2018 – 2019  
**Queen Elizabeth II Graduate Scholarship**: \$15,000 (Declined) 2018 – 2019  
**NSERC Undergraduate Student Research Award**: \$4,500 2018  
**NSERC Undergraduate Student Research Award**: \$4,500 2017

## RESEARCH POSITIONS

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**Doctoral Researcher**, University of Toronto & Vector Institute Jan 2019 – Present  
Supervisor: Dr. Daniel Roy

- Working to bridge the gap between generalization bounds for algorithms on IID data and regret bounds for online learning algorithms by incorporating information about the observed sequence.

**Undergraduate Researcher**, University of Western Ontario May 2018 – Aug 2018  
Supervisor: Dr. David Stanford

- Studied the Laplace-Stieltjes transform of the Maximum Priority Process for the Delayed Accumulating Priority Queue. Derived the average waiting time for high priority customers in this regime.

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

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**Institute for Advanced Study**, Princeton, New Jersey Jan 2020 – Mar 2020  
**Simons Institute for Theoretical Computing**, University of California, Berkeley July 2019

## PREPRINTS

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

## REFEREED PUBLICATIONS

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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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- Southwestern Ontario Graduate Math and Stats (SOGMSC)**, Guelph, Ontario. Oral. June 2019  
*The average waiting time for both classes in a delayed Accumulating Priority Queue.*
- Canadian Operational Research Society (CORS)**, Saskatoon, Saskatchewan. Oral. May 2019  
*The average waiting time for both classes in a delayed Accumulating Priority Queue.*
- Canadian Queueing Conference (CanQueue)**, Edmonton, Alberta. Oral. Aug 2018  
*Simulated co-location of patients admitted to an inpatient internal medicine teaching unit.*
- Operations Research Applied to Health Services (ORAHs)**, Oslo, Norway. Oral. July 2018  
*Simulated co-location of patients admitted to an inpatient internal medicine teaching unit.*

## PROFESSIONAL POSITIONS

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- Risk Research Intern**, Canada Life Insurance, London, Ontario May 2016 – Aug 2016  
• Performed statistical analysis for a major mortality study on life-contingent annuities.
- Data Analyst Intern**, Bell Canada, London, Ontario May 2015 – Aug 2015  
• Built a model to predict construction milestones from historical data for financial planning purposes.
- Level 3 Ice Hockey Referee**, Ontario Hockey Federation, London, Ontario Sep 2010 – Apr 2017

## TEACHING POSITIONS

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- Teaching Assistant**, University of Toronto
- STA442: Methods of Applied Statistics Fall 2019
  - STA257: Probability and Statistics I Fall 2019
  - STA261: Probability and Statistics II Summer 2019
  - STA457: Time Series Analysis Spring 2019
  - STA355: Theory of Statistical Practice Spring 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 2017
  - Continuing Admission Scholarship 2014 – 2018

## ACADEMIC SERVICE

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- VP Treasury**, Statistics Graduate Student Union, University of Toronto Sep 2019 – Aug 2020