# Blair Laurence Bilodeau

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### **EDUCATION**

PhD, Statistics – GPA: 3.96 / 4.00	2018 – 2023
University of Toronto, Toronto, Canada	2010 2023
Supervisor: Dr. Daniel Roy	
Honours BSc, Financial Modelling and Mathematics – GPA: 3.97 / 4.00	2014 - 2018
Western University, London, Canada	
RESEARCH GRANTS	
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

Jan 2019 – Present **Doctoral Researcher** 

University of Toronto, Toronto, Canada

Supervisor: Dr. Daniel Roy

• Working to bridge the gap between generalization bounds for algorithms on IID data and regret bounds for online learning algorithms. Towards this, I hope to develop a notion of model fit as a prior for the regret experienced.

# **Undergraduate Researcher**

May 2018 – Aug 2018

Western University, London, Canada Supervisor: Dr. David Stanford

• Derived the Laplace-Stieltjes transform of the Maximum Priority Process for the Accumulating Priority Queue, as well as the average waiting time for both classes in the Delayed APQ. Made progress on deriving the waiting time distribution for the high priority customers in the Delayed APQ.

### **Undergraduate Researcher**

May 2017 – Aug 2017

Western University, London, Canada

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.

## REFEREED PUBLICATIONS

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 physiciannurse collaboration. INFOR: Information Systems and Operational Research.

#### **CONFERENCE PRESENTATIONS**

SOGMSC, Guelph, Canada. Oral.

June 2019

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

CORS, Saskatoon, Canada. Oral.

May 2019

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

CanQueue, Edmonton, Canada. Oral.

August 2018

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

**ORAHS**, Oslo, Norway. Oral.

July 2018

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

#### **WORKING PAPERS**

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

#### PROFESSIONAL EXPERIENCE

#### Risk Research Intern

May 2016 – Aug 2016

London Life Insurance Company, London, Canada

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

#### **Data Analyst Intern**

May 2015 – Aug 2015

Bell Canada, London, Canada

• Built a model to predict construction milestones from historical data for financial planning purposes.

# **Level 3 Ice Hockey Referee**

Sep 2010 – Apr 2017

Ontario Hockey Federation, London, Canada

## TEACHING EXPERIENCE

#### **Teaching Assistant**

University of Toronto, Toronto, Canada

• STA261: Probability and Statistics II	Spring 2020
• STA238: Probability, Statistics, and Data Analysis II	Spring 2020
• 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

E.F. Burton and F.W. Burton Graduate Scholarship	2018
Robert and Ruth Lumsden Scholarships in Science	2017
Borwein Memorial Prize	2017
Western University Continuing Admission Scholarship	2014 - 2018

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