

Blair Laurence Bilodeau

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EDUCATION

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

RESEARCH GRANTS

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

Doctoral Researcher, University of Toronto & Vector Institute Jan 2019 – Present
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. Bilodeau**, D.A. Stanford. (2019). *The average waiting time for both classes in a delayed Accumulating Priority Queue.*

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.

CONFERENCE PRESENTATIONS

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

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

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

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

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