Blair Laurence Bilodeau

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EDUCATION

University of Toronto, PhD, Statistics — Sept 2018 – Present
Advisor: Daniel Roy

University of Western Ontario, Honours BSc, Financial Modelling — Sept 2014 – Apr 2018
GPA: 3.97 / 4.00

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 — Jan 2019 – Present
Doctoral Researcher — 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 — May – Aug 2018
Undergraduate Researcher — 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 — May – Aug 2017
Undergraduate Researcher — 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 — 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 * lead author; ** equal contribution

[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