Blair Laurence Bilodeau

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EDUCATION

University of Toronto, PhD, Statistics Sept 2018 – Present

Advisor: Daniel Roy

Western University, 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 - 2022NSERC Alexander Graham Bell Canada Graduate Scholarship – Master's: \$17,500 2018 - 2019Oueen Elizabeth II Graduate Scholarship in Science and Technology: \$15,000 (Declined) 2018 - 2019NSERC Undergraduate Student Research Award: \$4,500 2018 NSERC Undergraduate Student Research Award: \$4,500 2017

HONOURS AND AWARDS

Department of Statistical Sciences Student Ambassador Award 2020 New York Academy of Sciences ML Symposium Best Poster Award 2020 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 Western University Continuing Admission Scholarship 2014 - 2018

RESEARCH POSITIONS

Vector Institute, Toronto, Ontario

Graduate Researcher Advisor: Daniel Roy

Jan 2019 – Present

Studying regret bounds for sequential prediction. Current projects focus on non-Lipschitz loss, data-dependent regret bounds, and dimension-free results.

Western University May – Aug 2018 Advisor: David Stanford

Undergraduate Researcher

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.

Western University May - Aug 2017

Advisor: David Stanford Undergraduate Researcher

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

Blair Bilodeau 1 of 3 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**. *In submission*.

[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 *Event held virtually due to COVID-19

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.

*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.

Southwestern Ontario Graduate Math and Stats Conference, Guelph, Ontario. Oral.

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.

EURO Operational Research Applied to Health Services Annual Meeting, Oslo, Norway. Oral.

July 2018

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

STA457: Time Series Analysis

STA355: Theory of Statistical Practice

STA347: Probability Theory

ACT230: Mathematics of Finance for Non-Actuaries

Fall 2018

Fall 2019

Fall 2019

Fall 2018

VOLUNTEER POSITIONS

Statistics Graduate Student Association, University of Toronto

Sept 2019 - Aug 2020

Treasurer

Blair Bilodeau 2 of 3

PROFESSIONAL POSITIONS

Canada Life Insurance, London, OntarioRisk Research Intern
May – Aug 2016

Bell Canada, London, OntarioData Analyst Intern
May – Aug 2015

Ontario Hockey Federation, London, Ontario Sept 2010 – Apr 2017

Level 3 Ice Hockey Referee

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