# Blair Laurence Bilodeau

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## **DEGREES**

University of Toronto, PhD, Statistics Sept 2018 – Present

Committee: Daniel Roy (advisor), Nancy Reid, Ting-Kam Leonard Wong

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 - 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

# HONOURS AND AWARDS

Department of Statistical Sciences Student Ambassador Award	2020
New York Academy of Sciences Machine Learning Symposium Best Poster Award	2020
Institute for Advanced Study Visiting Graduate Student	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

### REFEREED PUBLICATIONS

†lead author; \*equal contribution

- **B. Bilodeau**<sup>†</sup>, D. J. Foster, D. M. Roy. (2020). Tight Bounds on Minimax Regret Under Logarithmic Loss via Self-Concordance. *International Conference on Machine Learning*.
- **B. Bilodeau**<sup>†</sup>, 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*.

## **PREPRINTS**

- **B. Bilodeau**\*, A. Stringer\*, Y. Tang\*. (2021). Higher-Order Accurate Approximate Bayesian Inference using Adaptive Quadrature. *Available on request*.
- **B. Bilodeau**\*, J. Negrea\*, D. M. Roy. (2020). Relaxing the I.I.D. Assumption: Adaptively Minimax Optimal Regret via Root-Entropic Regularization. *arXiv*:2007.06552.
- **B. Bilodeau**<sup>†</sup>, D. A. Stanford. (2020). Average Waiting Times in the Two-Class M/G/1 Delayed Accumulating Priority Queue. *arXiv*:2001.06054.

#### INVITED TALKS

Canadian Statistics Student Conference, Virtual.	May 2020
Institute for Advanced Study Special Year Student Seminar, Princeton, New Jersey.	Mar 2020

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## CONTRIBUTED TALKS

American Statistical Association Joint Statistical Meetings, Virtual. Poster.	Aug 2020
New York Academy of Sciences Machine Learning Symposium, Virtual. Poster.	Mar 2020
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
Canadian Queueing Conference, Edmonton, Alberta. Oral.	Aug 2018
Operational Research Applied to Health Services Annual Meeting, Oslo, Norway. Oral.	July 2018

#### **EMPLOYMENT**

Graduate Researcher, Advised by Daniel Roy

Jan 2019 – Present

Regret bounds for sequential prediction: non-Lipschitz loss, data-dependent regret bounds, and dimension-free results.

Western University, London, Ontario

Undergraduate Researcher, Advised by David Stanford

May - Aug 2018

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.

Undergraduate Researcher, Advised by David Stanford

May – Aug 2017

Simulation model of the internal medicine ward at London's University Hospital to study physician—nurse collaboration efficiency.

Canada Life, London, Ontario

Risk Research Intern, Wealth Management

May – Aug 2016

Bell Canada, London, Ontario

Data Analyst Intern, Access Network

May - Aug 2015

# **TEACHING**

# **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

Various undergraduate statistics courses

Fall 2018 – Present

## **SERVICE**

#### Reviewing

Algorithmic Learning Theory 2021

## **Statistics Graduate Student Association, University of Toronto**

Treasurer Sept 2019 – Present

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