

# Blair Laurence Bilodeau

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## DEGREES

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**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

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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 ( <i>Declined</i> )	2018 – 2019
NSERC Undergraduate Student Research Award: \$4,500	2018
NSERC Undergraduate Student Research Award: \$4,500	2017

## HONOURS AND AWARDS

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Student Ambassador Award, University of Toronto Department of Statistical Sciences	2020
Best Poster Award, New York Academy of Sciences Machine Learning Symposium	2020
Visiting Graduate Student, Institute for Advanced Study	2020
E. F. Burton and F. W. Burton Graduate Scholarship, University of Toronto	2018
Robert and Ruth Lumsden Scholarship in Science, Western University	2017
Borwein Memorial Prize, Western University	2017
Continuing Admission Scholarship, Western University	2014 – 2018

## REFEREED PUBLICATIONS

<sup>†</sup>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

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**B. Bilodeau**<sup>\*</sup>, A. Stringer<sup>\*</sup>, Y. Tang<sup>\*</sup>. (2021). Higher-Order Accurate Approximate Bayesian Inference using Adaptive Quadrature. *Available on request*.

**B. Bilodeau**<sup>\*</sup>, J. Negrea<sup>\*</sup>, 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

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RIKEN Center for Advanced Intelligence Project, Virtual. ( <i>with Jeffrey Negrea</i> )	Feb 2021
Canadian Statistics Student Conference, Virtual.	May 2020
Institute for Advanced Study Special Year Student Seminar, Princeton, New Jersey.	Mar 2020

## 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

### Vector Institute, Toronto, Ontario

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
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### Bell Canada, London, Ontario

Data Analyst Intern, Access Network	May – Aug 2015
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## 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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