

Blair Bilodeau

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DEGREES

| | | |
|--------------------|---------|--|
| <i>In progress</i> | Ph.D. | Statistical Sciences, University of Toronto Advisor: Daniel Roy Committee: Nancy Reid, Ting-Kam Leonard Wong |
| 2018 | H.B.Sc. | Financial Mathematics, Western University GPA: 3.97 / 4.00 |

RESEARCH GRANTS

| | | |
|---------|-------------|---|
| 2020 | 6,000 CAD | NSERC Michael Smith Foreign Study Supplement |
| 2019–22 | 105,000 CAD | NSERC Alexander Graham Bell Canada Graduate Scholarship – Doctoral |
| 2018–19 | 17,500 CAD | NSERC Alexander Graham Bell Canada Graduate Scholarship – Master’s |
| 2018–19 | 15,000 CAD | Queen Elizabeth II Graduate Scholarship in Science and Technology (<i>Declined</i>) |
| 2018 | 4,500 CAD | NSERC Undergraduate Student Research Award |
| 2017 | 4,500 CAD | NSERC Undergraduate Student Research Award |

HONOURS AND AWARDS

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|---------|---|
| 2021 | Hannan Graduate Student Travel Award, Institute of Mathematical Statistics |
| 2020 | Student Ambassador Award, University of Toronto |
| 2020 | Best Poster Award, New York Academy of Sciences Machine Learning Symposium |
| 2020 | Visiting Graduate Student, Insitute for Advanced Study, Princeton, New Jersey |
| 2018 | E. F. and F. W. Burton Graduate Scholarship, University of Toronto |
| 2017 | Robert and Ruth Lumsden Scholarship in Science, Western University |
| 2017 | Borwein Memorial Prize, Western University |
| 2014–18 | Continuing Admission Scholarship, Western University |

REFEREED PUBLICATIONS

[†]lead author; *equal contribution

1. **B. Bilodeau**[†], D. J. Foster, D. M. Roy. (2020). Tight Bounds on Minimax Regret Under Logarithmic Loss via Self-Concordance. *International Conference on Machine Learning*.
2. **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*.

PREPRINTS

3. **B. Bilodeau**^{*}, A. Stringer^{*}, Y. Tang^{*}. (2021). Stochastic Convergence Rates and Applications of Adaptive Quadrature in Bayesian Inference. *arXiv:2102.06801*.
4. **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*.
5. **B. Bilodeau**[†], D. A. Stanford. (2020). Average Waiting Times in the Two-Class M/G/1 Delayed Accumulating Priority Queue. *arXiv:2001.06054*.

PRESENTATIONS (CONTRIBUTED AND INVITED TALKS/SEMINARS/COLLOQUIA)

Minimax Rates for Conditional Density Estimation via Empirical Entropy

Apr 2021 University of Toronto Statistical Sciences Research Day: Oral Session

Relaxing the I.I.D. Assumption: Adaptively Minimax Optimal Regret via Root-Entropic Regularization

Mar 2021 University of California, Los Angeles : Computer Science Seminar

Mar 2021 Massachusetts Institute of Technology: Stochastics and Statistics Seminar

Feb 2021 RIKEN Center for Advanced Intelligence Project: Public Seminar

Tight Bounds on Minimax Regret under Logarithmic Loss via Self-Concordance

Aug 2020 American Statistical Association Joint Statistical Meetings: Poster Session

Mar 2020 New York Academy of Sciences Machine Learning Symposium: Poster Session

Mar 2020 Institute for Advanced Study: Special Year Student Seminar

Scraping Papers from arXiv and biorXiv using Python

May 2020 Canadian Statistics Student Conference: Invited Workshop

Average Waiting Times in the Two-Class M/G/1 Delayed Accumulating Priority Queue

Aug 2019 Canadian Queueing Conference: Oral Session

June 2019 Southwestern Ontario Graduate Math and Stats Conference: Oral Session

May 2019 Canadian Operational Research Society Annual Meeting: Oral Session

Simulated Co-location of Patients Admitted to an Inpatient Internal Medicine Teaching Unit

Aug 2018 Canadian Queueing Conference: Oral Session

July 2018 Operational Research Applied to Health Services Annual Meeting: Oral Session

EMPLOYMENT

2019– Graduate Researcher, Vector Institute, Toronto, Ontario

2017–18 Undergraduate Researcher, Western University, London, Ontario

2016 Risk Research Intern, Canada Life, London, Ontario

2015 Data Analyst Intern, Bell Canada, London, Ontario

TEACHING

UTSG = University of Toronto, St. George

Course Instructor

2020 UTSG STA347 Probability Theory

Head Teaching Assistant

2019 UTSG STA442 Methods of Applied Statistics

2019 UTSG STA261 Probability and Statistics II

Teaching Assistant

2021 UTSG STA238 Probability, Statistics, and Data Analysis II

2019, 2020 UTSG STA257 Probability and Statistics I

2019 UTSG STA457 Time Series Analysis

2019 UTSG STA355 Theory of Statistical Practice

2018, 2020 UTSG STA347 Probability Theory

2018 UTSG ACT230 Mathematics of Finance for Non-Actuaries

SERVICE

Conference Reviewer

2021 Algorithmic Learning Theory

Administrative Positions

2019– Treasurer, Statistics Graduate Student Association, University of Toronto