Blair Bilodeau

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DEGREES

In progress	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 *(Declined)*
2018	4,500 CAD	NSERC Undergraduate Student Research Award
2017	4,500 CAD	NSERC Undergraduate Student Research Award

HONOURS AND AWARDS

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