Miguel Biron Lattes

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🖥 https://miguelbiron.github.io/

Education

2018–present	**Ph.D. Statistics**, *University of British Columbia*, Vancouver, BC.
supervisors:	Drs. Alexandre Bouchard-Côté & Trevor Campbell
2014–2015	**M.A. Statistics**, *Columbia University*, New York, NY.
project:	Analyzing call center data using self-exciting point processes
2006–2012	**B.Eng.Sc. Industrial Engineering**, *University of Chile*, Santiago, Chile.
supervisors:	Drs. José Miguel Cruz & Cristián Bravo
note:	Considers also a professional degree in Industrial Engineering

Academic Experience

2019–present	**Research Assistant**, *UBC Statistics*, Vancouver, Canada.
	Supervised by Alexandre Bouchard-Côté & Trevor Campbell.
2019–2020	**Teaching Assistant**, *UBC Statistics*, Vancouver, Canada.

- STAT 251 — Elementary Statistics
- STAT 302 — Introduction to Probability
- STAT 450 — Case Studies in Statistics

Publications

2018	**Biron, M.**, and Medina, V. *Leveraging Probability of Default Models for Bayesian Inference of Default Correlations*. Paper presented at the Conference on Business Analytics in Finance and Industry (BAFI), University of Chile, Santiago, Chile.
2014	**Biron, M.**, & Bravo, C. On the discriminative power of credit scoring systems trained on independent samples. In *Data Analysis, Machine Learning and Knowledge Discovery* (pp. 247-254). Springer International Publishing.

Honors

2018	**Anona Thorne and Takao Tanabe Graduate Entrance Scholarship**, *Department of Statistics, UBC*.
2018–2021	**Four year doctoral fellowship (4YF)**, *UBC*.
	Provided with financial support of at least $18,200 per year plus tuition for up to four years of their doctoral studies
2014	**Becas Chile Scholarship**, *CONICYT*.
	For graduate studies abroad (ranked 42 out of 408 recipients and out of 1,384 valid applications)
2006–2010	**Dean's list**, *University of Chile (FCFM)*.
	For obtaining a GPA of 5.7 or above (scale ranges from 1 to 7).

Technical Experience (in decreasing order of proficiency)

languages	R, C/C++, SQL, Julia, Stan, Python, MATLAB, Java, LaTeX, Visual Basic

technologies	Git, Jupyter Notebooks, R Markdown, Oracle, Sybase IQ, Microsoft SQL Server, Microsoft Excel

Conferences and seminars

Presentations

2018–present	**Multiple Reading Groups**, *UBC*.
	Regular presentations at groups headed by Drs. Benjamin Bloem-Reddy, Alexandre Bouchard-Côté & Trevor Campbell.
2018	**Conference on Business Analytics in Finance and Industry (BAFI)**, *Santiago, Chile*.
	Leveraging Probability of Default Models for Bayesian Inference of Default Correlations

Organization

2020–present	**Constance van Eeden Student Seminar**, *UBC*.

Professional Experience

2019–2020	**Senior consultant**, *Applied Statistics and Data Science Group*, UBC.
	In charge of organizing and holding meetings with clients, and supervising the work of a junior consultant responsible of writing a summary report with our recommendations. Notable projects:
	○ Prior Clinical Presentations and Service use Patterns as Predictors of Mortality in The Hotel Study Participants during the 10-year period of Observation
	○ Association between time–to–surgery and survival rates of breast cancer patients
	○ Assessing reliability of the Heckmatt scale for ultrasound-visualized spasticity-related fibrosis
	○ Characterizing brain metastases arising from head and neck cancer
	○ Evaluation of Wood-Cement Composites Made with Contaminated Wood Waste
	○ Analyzing glaucoma-related patient outcomes after anti-VEGF therapy
	○ COPD originates in polluted air: controlled human exposure study to diesel exhaust in COPD
2015–2018	**Financial Stability Analyst**, *Superintendency of Banks and Financial Institutions*, Santiago, Chile.
	I spent most of my time producing monthly reports with insights regarding potential threats to the financial stability of the banking system. This required processing massive databases with account-level data collected from banks (using SQL) for then analyzing them (using R). I also conducted applied research on the topic of financial stability. Some notable projects:
	○ Developing a method for Bayesian inference of default correlations by leveraging probability of default (PD) models
	○ Building a systemic risk indicator for retail loans using account-level and macroeconomic data
	○ Comparing the performance of statistical learning models for credit scoring
	○ Estimating the joint distribution of implicit bank PDs from market transactions of time deposits
2011–2014	**Financial Engineering Analyst**, *CL Group Financial Services Consulting*, Santiago, Chile.
	I was the lead analyst in a wide array of projects involving quantitative modelling of market and credit risk. Clients were financial institutions, mostly banks. Some notable projects were:
	○ Quantifying counterparty credit risk exposure of an interest rate swaps portfolio
	○ Developing the market risk framework for a Central Counterparty of OTC derivatives
	○ Assessing the credit risk exposure of a government-backed portfolio of student loans
	○ Constructing PD models at many banks for credit risk management

Last updated: February 18, 2021