

Sean Devine

BEHAVIOURAL SCIENTIST

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Fully Bilingual: English, French

Summary

Cognitive Scientist (PhD McGill University) and Behavioural Science Fellow at Impact Canada.

Education

McGill University Ph.D. In Experimental Psychology (Cognitive Science)	Montreal, Canada 2020-2024
Concordia University Master Of Experimental Psychology	Montreal, Canada 2020
Concordia University Bachelor Of Psychology	Montreal, Canada 2018

Experience

Behavioural Science Fellow <ul style="list-style-type: none">- Developed behavioural science-supported solutions to public health issues facing Canadian citizens.- Worked closely with the Public Health Agency of Canada to design, test, and implement an intervention aimed at understanding and promoting access to vaccine resources among Canadians.- Provided expertise on statistics and research-method across departments, including tutorials on machine learning techniques (XGBoost) and data simulation techniques.	Impact Canada Impact and Innovation Unit, Government of Canada 2024-Present
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Behavioural Scientist Internship <ul style="list-style-type: none">- Developed behavioural interventions to solve both client-facing and employee business problems- Leveraged AI (PyTorch, XGBOOST) models for topic modeling, risk prediction, and sentiment analysis- Analyzed large data sources to simulate business path success likelihood- Designed scientific experiments to test new products and ideas- Introduced new statistical techniques (e.g., Bayesian analysis) into industry- Developed new analysis pipelines and integrated with existing dashboards (PowerBI)	IntactLab (Intact Insurance) 2023-2024
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Otto Lab Ph.D. Student (supervisor: Dr. Ross Otto) <ul style="list-style-type: none">- Designed numerous experiments, using Python, JavaScript, and MATLAB (including backend with SQL and PostgreSQL)- Analyzed experimental and large-scale consumer data- Fit computational and deep learning models to empirical data- Published results in high-impact, peer-reviewed, journals- Presented results at multiples international conferences- Led multiple workshops, teaching colleagues and students advanced statistical techniques	McGill University 2020-2024
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Lifespan Decision-Making Lab Masters Student and Research Coordinator (supervisor: Dr. Ross Otto) <ul style="list-style-type: none">- Designed numerous experiments, using Python, JavaScript, and MATLAB- Analyzed experimental data, resulting in the completion of a master's thesis and defence- Fit computational models to empirical data- Published results in high-impact, peer-reviewed, journals- Presented results at multiples international conferences- Digitized pre-existing paper-and-pencil experiments, implementing open science best practices	Concordia University 2018-2020
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Other Work and Extracurricular Experience

Teaching Assistantships

Introduction to Statistics McGill University	2020-2022
Statistics for Experimental Design McGill University	2021
Statistical Analysis I Concordia University	2020

Editorial Activities—Reviewer

I have reviewed articles for the following journals: Perspectives in Psychological Science, Cognitive, Affective, & Behavioural Neuroscience, Cognition, Royal Society for Open Science, Advances in Cognitive Science, and the Journal of Trial and Error.

Additional Training

Deep Learning Certification Neuromatch Academy	2021
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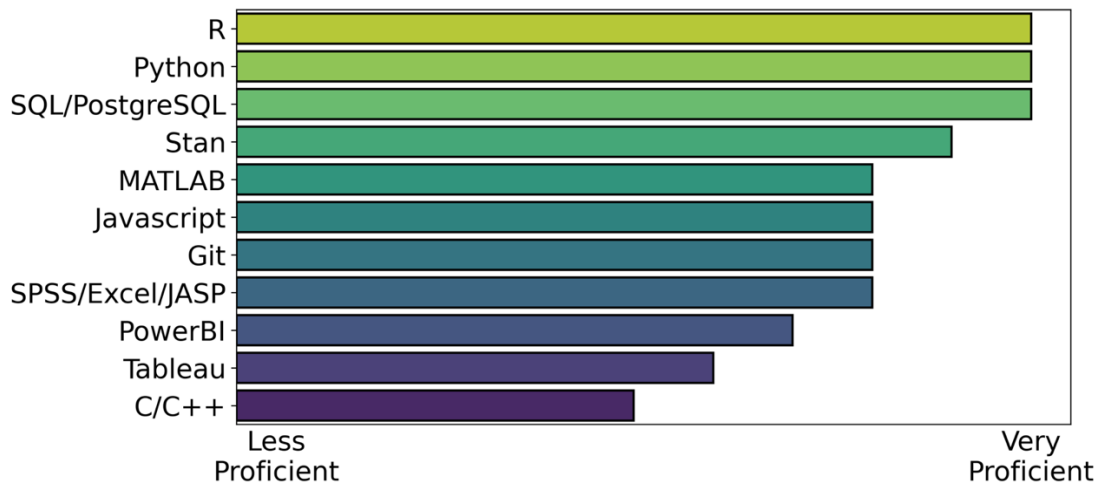
Leadership

Led Workshops

Introduction to Hierarchical Drift Diffusion Modeling Rabound University	Feb 2024
Introduction to Reinforcement Learning Rabound University	Feb 2024
Bayesian Statistics for A/B Tests IntactLab	Jan 2024
Introduction to Bayesian Statistics IntactLab	June 2023
Introduction to Data Science [Series] McGill University	Nov-Dec 2022
Introduction to Bayesian Statistics Concordia University shorturl.at/dfsR6	March 2022
Maximum Likelihood Estimation in R Concordia and McGill Universities https://github.com/seandamiandevine/MLEWorkshop	October 2022
Multilevel Modeling: Basic and Advanced Topics Concordia and McGill Universities https://github.com/seandamiandevine/MLMTutorial_2021	June-July 2021
Programming Experiments Online Concordia, McGill, and TU Dresden Universities	April 2022
Python for Psychologists Concordia University	April 2020

Professional Skills

Programming Languages



Articles and Conferences

I have authored numerous research articles in internationally-recognized peer-reviewed journals and presented at many international conferences. Here is a short list of recently published articles, which I think highlight some of my competencies in data science and science communication. To see the full list, see

https://seandevine.org/homepage_files/cv_long.pdf.

- Devine, S., Germain, N., Ehrlich, S., & Eppinger, B. (2022). Changes in the Prevalence of Thin Bodies Bias Young Women's Judgments About Body Size. *Psychological Science*, 33(8), 1212-1225. <https://doi.org/10.1177/09567976221082941>
- Otto A.R., Devine, S., Bornstein, A.M., & Louie, K. (2022). Context-dependent choice and evaluation in real-world consumer behavior. *Scientific Reports*, 12, 17744. <https://www.nature.com/articles/s41598-022-22416-5>
- Devine, S., Otto, A. R., Uanhoro, J. O., & Flake, J. K (under review). A Tutorial for Quantifying Within- and Between-Participant Variance in Multilevel Logistic Models. *Advances in Methods and Practices in Psychological Science*. <https://doi.org/10.31234/osf.io/v68wb>