Benjamin LeBrun

Contact Information	4152 St-Laurent, Apartment 201 Montréal, Québec H2W 1Y9	benjamin.lebrun@mail.mcgill.ca (514) 835-2058 https://benlebrun.github.io/

Research Interests

Probabilistic and deep learning models of natural language. Bayesian Cognitive Science. Mathematical linguistics. Computational Social Science.

Employment

McGill University, Montréal, QC, Canada
Research Assistant: Montreal Computational and Quantitative Linguistics Lab, 2020-Present
Research Assistant: txtlab @ McGill, 2019-2021
Information Clerk: Department of Student Housing and Hospitality, 2019

John Abbott College, Montréal, QC, Canada
Tutor: Department of Mathematics, 2018

Education

McGill University, Montréal, QC, Canada

B.A., Computer Science and Linguistics, 2021
Relevant coursework: *Probabilistic Programming; Computational Linguistics; Natural Language Processing; Probability; Semantics I & II; Mathematical Logic*

John Abbott College, Montréal, QC, Canada

DEC, Honours Social Science Commerce, 2016-2018

Publications

[1] B. LeBrun, K. Todd, and A. Piper. (Under Review). Buying the News: A Quantitative Study of the Effects of Corporate Acquisition on Local News.

[2] B. LeBrun, A. Sordoni, and T. J. O'Donnell (In Preparation). Distributional Distortion in Neural Language Models.

[3] B. LeBrun, S. Mehr, and T. J. O'Donnell (In Preparation). Musical Powerlaws.

[4] C. Lin* and B. LeBrun* (2020). Streaming Bias: Studying Music Curation on Spotify. txtLAB Whitepaper, [link].

Other Relevant Projects

Evaluating Syntactic Heuristics in Natural Language Inference. *McGill Artificial Intelligence Society, 2020*

Tell Me More: AI-powered digital well-being tool for personal journal entries with emotional analysis. *McHacks 7, 2020 (Winner: IBM Best Use of Watson NLU API)*

Grants

2021: Fonds de Recherche du Québec Nature et Technologie Suppléments aux bourses de 1er cycle du CRSNG.
Nouveauté syntaxique dans les modèles de langage Transformer. (Syntactic Novelty in Transformer Language Models).
$1,500.

2021: Natural Sciences and Engineering Research Council of Canada Undergraduate Student Research Award.
Syntactic Novelty in Transformer Language Models.
$7,500.

* Indicates co-first-authorship.

2020: Faculty of Arts Undergraduate Research Award.
Computational Study of the Effects of Cost-Cutting in Journalism.
$4,500.

2019: Center for Social and Cultural Data Science Research Seed Grant.
Streaming Bias: Studying Music Curation on Spotify
$1,000.

Presentations

Large Number of Rare Event Distributions in Language Modelling. *Montreal Computational and Quantitative Linguistics Lab.* September, 2021

Syntactic Novelty in Transformer Language Models. *Montreal Computational and Quantitative Linguistics Lab.* March, 2021

A Computational Study of the Impact of Cost-Cutting on Journalism. *Faculty of Arts Undergraduate Research Event.* January, 2021

The Mavening: Understanding the Effects of Corporate Takeovers in Journalism. *txtlab @ McGill.* September, 2020

Investigating representation in Spotify's editorially-curated playlists (w/ Cheng Lin). *Center for Social and Cultural Data Science Spring Research Slam and Networking Lunch.* May, 2019

Skills

Natural languages: English and French; fully bilingual
Programming languages: Python, Julia, Ocaml, Java