

# David Beauchemin

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🔗 See GitHub ↗\*

🌐 See profile ↗\*

## Education

2020 –	<b>Doctor of Philosophy, Computer Science   Machine Learning   Natural Language Processing</b> Laval University GRAIL - Group for Research in Artificial Intelligence of Laval University ↗*
2018 – 2020	<b>Master's degree in Computer Science   Machine Learning   Natural Language Processing</b> Laval University GRAIL - Group for Research in Artificial Intelligence of Laval University ↗* Thesis subject: <i>Détection de doublons parmi des informations non structurées provenant de sources de données externes</i>
2015 – 2018	<b>Bachelor's degree in actuarial sciences</b> Laval University

## Experiences

### Professional

2019 –	<b>Applied AI Researcher in Natural Language Processing</b> Baseline Applied AI research for clients & specialized formation in AI
2019 – 2021	<b>Developer</b> Poutyne ↗* Feature developement
2019 –	<b>Founder, Researcher, and Interviewer</b> OpenLayer podcast ↗* AI content creation
2018 –	<b>Event planning</b> Meetup Machine Learning Quebec Co-organization of events in Quebec city
2019 – 2020	<b>AI scientist</b> Vooban Technical advisor in artificial intelligence

### Teaching

2022 –	<b>Lecturer</b> Laval University Advance Databases
2016 – 2022	<b>Teaching Assistant</b> Laval University, École d'actuariat <i>Introduction à l'actuariat I, Gestion du risque financier I, Analyse et traitement collectif du risque, Informatique pour actuaire, Méthodes numériques en actuariat, Mathématiques actuarielles IARD II, Modèles linéaires en actuariat, Programmation avec R pour l'analyse de données</i>
2019 – 2020	<b>Teaching Assistant</b> Laval University, BDRC - Big Data Research Center Winter school in machine learning

## Research

2020 – 2022



### Research Assistant

Laval University, IID - Institute Intelligence and Data

Female Workers Facing the Challenge of Digital Transformation: A Case Study in the Insurance Sector

Christian Gagné, Future skills centre

2020



### Research Assistant

Laval University, *École d'actuariat*

*Plateforme libre de validation et d'étalonnage de prévisions financières et actuarielles*

Vincent Goulet, Laval University actuarial science research chair

2019



### Research Assistant

Laval University, GRAIL - Group for Research in Artificial Intelligence of Laval University

Information gathering using external unstructured data sources

Luc Lamontagne, NSERC/Intact Financial Corporation Industrial Research Chair in Machine Learning for Insurance

2019



### Research Assistant

Laval University, GRAIL - Group for Research in Artificial Intelligence of Laval University

Learning taxonomy of professional skills

Luc Lamontagne, ENGAGE project

2018



### Research Assistant

Laval University, *École d'actuariat*

Intergenerational equity: metrics for conditional indexation in pension plans

Louis Adam, Laval University actuarial science research chair

2018



### Research Assistant

Laval University, GRAIL - Group for Research in Artificial Intelligence of Laval University

Weighted bootstrapping method for word relation extraction

Luc Lamontagne

## Publications





### Article

- 2022 David Beauchemin and Marie-Claire Monty. La discrimination en intelligence artificielle est-elle suffisamment encadrée \*. 2022. hal-03736828v2
- 2022 Vincent Primpied, David Beauchemin and Richard Khoury. Quantifying French Document Complexity \*. Proceedings of the Canadian Conference on Artificial Intelligence. <https://doi.org/10.21428/594757db.8b7cd94b>
- 2022 David Beauchemin, Julien Laumonier, Yvan Le Ster, Marouane Yassine. "FIJO": a French Insurance Soft Skill Detection Dataset \*. Proceedings of the Canadian Conference on Artificial Intelligence. <https://doi.org/10.21428/594757db.858dd91f>
- 2021 Marouane Yassine, David Beauchemin, François Laviolette and Luc Lamontagne. Multinational Address Parsing: A Zero-Shot Evaluation \*. International Journal of Information Science and Technology, [S.l.], v.6, n.3, p.40 - 50, sep. 2022. ISSN 2550-5114
- 2020 David Beauchemin, Nicolas Garneau, Eve Gaumond, Pierre-Luc Déziel, Richard Khoury and Luc Lamontagne. *Generating Intelligible Plumitifs Summaries: Use Case Application with Ethical Considerations* \*. The 13th International Conference on Natural Language Generation.
- 2020 Marouane Yassine, David Beauchemin, François Laviolette and Luc Lamontagne. *Leveraging Subword Embeddings for Multinational Address Parsing* \*. IEEE CiSt'20, MNLP.
- 2019 Nicolas Garneau, Mathieu Godbout, David Beauchemin, Audrey Durand and Luc Lamontagne. *A Robust Self-Learning Method for Fully Unsupervised Cross-Lingual Mappings of Word Embeddings: Making the Method Robustly Reproducible as Well* \*. REPORLANG@LREC2020.

### Other publication

- 2017 David Beauchemin and Vincent Goulet *Typesetting actuarial symbols easily and consistently with actuarialsymbol and actuarialangle* \*

## Packages

2020	Marouane Yassine et David Beauchemin <i>Deepparse: A state-of-the-art deep learning multinational addresses parser</i>  *
2019	David Beauchemin <i>Notif: The notification package for every python project</i>  *
2017	Simon-Pierre Gadoury and David Beauchemin <i>nCopula: Hierarchical Archimedean Copulas Through Multivariate Compound Distributions</i>  *
2017	Vincent Goulet and David Beauchemin <i>actuarialsymbol - Actuarial notation with L<sup>A</sup>T<sub>E</sub>X</i>  *

## Funding and Scholarships

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2022 – 2025	<b>Research Grant</b> <i>Fonds de recherche du Québec - Nature and technologies</i>
2020 –	<b>Research Grant</b> <i>Forage de données d'assurance : techniques, éthiques, et sécurité</i>
2020	<b>Entrance Scholarship</b> Doctoral Entrance Scholarship
2019 – 2020	<b>Research Grant</b> NSERC/Intact Financial Corporation Industrial Research Chair in Machine Learning for Insurance Software engineering development of Poutyne deep learning framework
2019	<b>Research Grant</b> NSERC/Intact Financial Corporation Industrial Research Chair in Machine Learning for Insurance Information gathering using external data sources
2018	<b>Gaston Paradis Excellence Award</b> Laval University Social involvement
2018	<b>Yves-Roy Award</b> Laval University Best software engineering term project