

# David Beauchemin

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🔄 See GitHub

🌐 See profile

## Education

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| 2020 –      | <b>Doctor of Philosophy, Computer Science   Machine Learning   Natural Language Processing</b><br>Laval University<br>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><br>Laval University<br>GRAIL - Group for Research in Artificial Intelligence of Laval University<br>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><br>Laval University   |

## Experiences

### Professional

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

### Teaching

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| 2016 –      | <b>Teaching Assistant</b><br>Laval University, École d'actuariat<br><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><br>Laval University, BDRC - Big Data Research Center<br>Winter school in machine learning   |

## Research



2020 –

### 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

- 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

- 2018 David Beauchemin *Détection de doublons parmi des informations non structurées provenant de sources de données différentes*, Master Thesis
- 2017 David Beauchemin and Vincent Goulet *Typesetting actuarial symbols easily and consistently with actuarialsymbol and actuarialangle*

### Packages

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

## Communications

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### Workshops

- 2019 *Les tests automatisés en R*  
*R à Québec*
- 2019 *Extraction d'information à partir du Web*  
Actulab
- 2019 *Atelier pratique en git*  
Meetup Machine Learning Quebec
- 2017 *Formation d'introduction à R*  
*R à Québec*
- 2017 **R & Markdown**  
*École d'actuariat*

### Presentations

- 2020 – 2021 *La reproductibilité en apprentissage automatique*  
Webinaires de l'IID & bootcamp de l'IID  
Laval University, Canada
- 2020 **Detection of Duplicates Among Non-structured Data From Different Data Sources**  
Séminaires IID  
Université Laval, Canada
- 2020 **Intelligibility of digital court records: the criminal docket experience**  
Cyberjustice laboratory
- 2020 *Détection de doublons parmi des informations non structurées provenant de sources de données externes*  
Intact scientific workshop  
Laval University, Canada
- 2019 *Bonnes pratiques & git*  
IFT-6010  
Laval University, Canada
- 2019 *Assurance Qualité, calcul scientifique & R*  
R à Québec & CLESSN  
Laval University, Canada
- 2019 **Information gathering using external unstructured data sources**  
Intact scientific workshop  
Laval University, Canada
- 2019 *Classification de doublons de risques commerciaux*  
Intact scientific workshop  
Laval University, Canada
- 2019 *Introduction à Scikit-learn*  
Summer school of the Group for Research in Artificial Intelligence of Laval University interns  
Laval University, Canada
- 2018 *Système de gestion des bénévoles Agapè*  
GLO-7035  
Laval University, Canada
- 2017 *Où sont les clients que nous ciblons?*  
Actulab  
Laval University, Canada

### Blog Article

- 2020 **Training a Recurrent Neural Network (RNN) Using PyTorch**  
.Layer

## Funding and Scholarships

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

## Award and Distinctions

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| 2016 – 2018 | <b>Gala for the student excellence</b><br>AESGUL (Association des Étudiants en Sciences et Génie de l'Université Laval)<br>Social involvement |
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## Community Involvement

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### Committee

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|-------------|---|
| 2020 –      | <b>R à Québec Organization Committee</b><br>President of organization of the workshop sessions<br>Laval University, Canada  |
| 2020 –      | <b>Editorial Blog Committee</b><br>President<br>.Layr   |
| 2020 –      | <b>Committee Data Universal Tool Development</b><br>President<br>.Layr  |
| 2020        | <b>Co-design AI Prospective Workshop</b><br>Participant<br>IOSIAIDT - International Observatory on the Societal Impacts of Artificial Intelligence and Digital Technology |
| 2019 – 2020 | <b>Committee for the improvement of teaching evaluations</b><br>Participant<br>Faculty of Science and Engineering, Laval University                                       |
| 2018        | <b>Organisational committee for Machine Learning in Insurance Week</b><br>Participant<br>Meetup Machine Learning Quebec   |



## Jury

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| 2018 – 2020 | <b>Member of the Jury</b><br>My assignment in 180 seconds<br><i>École d'actuariat</i> , Laval University                                 |
| 2019 – 2020 | <b>Member of the Jury</b><br>Presentation of the assignment<br>Department of Computer Science and Software Engineering, Laval University |

## Cooperative

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| 2020 –<br> | <b>Baseline</b><br>Chairman of the Board of Directors of Baseline, a worker cooperative in artificial intelligence<br>Quebec, Canada |
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## Non-Profit Associations

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|--|---|
| 2021 –<br>      | <b>.Layer</b><br>President<br>Quebec, Canada  |
| 2019 – 2021<br> | <b>.Layer</b><br>Vice-president of business development<br>Quebec, Canada                               |
| 2016 – 2018  | <b>AÉACT (Association des Étudiants en Actuariat de l'Université Laval)</b><br>Laval University, Canada |

## Podcast

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| 2020 – | <b>IA &amp; café</b><br>Invited co-host of the podcast <i>IA &amp; café</i> |
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