

Fabrizio Gotti, M.Sc.

Machine learning developer specialized in Natural Language Processing

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Objective

Help build state-of-the art, useful AI applications that strike the right balance between performance and efficiency.

Skills

I have extensive experience with a wide variety of technologies in AI and NLP, from the simplest decision trees in Java to the more complex machine-learning-based applications in Python. A large part of my experience derives from working on scientific and industrial challenges in machine translation, including lexicography, evaluation, and translation memories. I take great care in understanding and processing the fuel for modern artificial intelligence: big (textual) data. I know how to find solutions to complex problems in the scientific literature and apply them successfully to concrete industry problems.

Experience

NLP Developer & Researcher – University of Montreal, [RALI laboratory](#)

Since 2004

Along with my collaborators in our lab (RALI: Applied Research in Computational Linguistics), I write, document, test and deploy NLP software, covering a wide variety of applications. This includes grammar checkers, machine translation, textual data analysis, translation memories, named entity recognition. I work mainly in Java and Python, using such machine learning frameworks and Stanford NLP, pytorch, scikit-learn, BERT-like transformers and spaCy. Lately, I have worked mainly with large language models (LLMs), like GPT and Llama. I also deploy our work on-premises and in the cloud, and have extensive experience in this area as well.

I write scientific articles and participate in the research activities of my University.

Scientific Advisor in NLP – IVADO

Since 2019

In parallel to my work at the University, I act as scientific advisor for IVADO, contributing to its mission to foster partnerships between academia and industry, in the field of NLP. I help build [CLIQ-ai](#), a large association of companies and academics interested in NLP in Québec, by managing the project and writing grant applications with my colleagues.

Education

Because I work in a research lab at the University of Montreal, I benefit from continuing education in my field, natural language processing (NLP), since 2004.

Masters in Computer Science – University of Montreal
2009 – 2012

Average: 4.3/4.3, MSc thesis with mention “exceptional”, Valedictorian
Governor General of Canada Academic Gold Medal

Bachelor of Science in Computer Science – University of Montreal
1999 – 2002

Average: 4.3/4.3, Valedictorian
Governor General of Canada Academic Silver Medal
Natural Sciences and Engineering Research Council of Canada (NSERC) scholarships for summers of 2000 and 2001, at RALI laboratory

Bachelor of Science in Biology – University of Montreal
1996 – 1999

Full scholarship by Avon Canada
Specialization in plant biology and biotechnology.
Average: 4.2/4.3

Skills

OSes: Windows, Mac and Linux, including system administration.

Programming languages: Java, C++, Python, XML technologies, JavaScript, php.

Popular NLP frameworks like UIMA, GATE, Stanford NLP, spaCy, stanza, huggingface & pytorch.

Selected publications

Gotti, F., Langlais, P., Letard, V. (2023) Large-scale Semantic Annotation for Improved Content Discovery in a Digital Library: A Case Study on Érudit, technical report.

Gotti, F., & Langlais, P. (2019). Weakly Supervised, Data-Driven Acquisition of Rules for Open Information Extraction. *Canadian Conference on Artificial Intelligence*, 16–28.

Gotti, F., & Langlais, P. (2018). From French Wikipedia to Erudit: A test case for cross-domain open information extraction. *Computational Intelligence*, 34(2), 420–439.

Casagrande, A., Gotti, F., & Lapalme, G. (2017). Cerebra, un système de recommandation de candidats pour l'e-recrutement. *AISR2017*.

Gotti, F., & Langlais, P. (2016). Harnessing open information extraction for entity classification in a French corpus. *Canadian Conference on Artificial Intelligence*, 150–161.

Gotti, F., Langlais, P., & Farzindar, A. (2013). Translating government agencies' tweet feeds: Specificities, problems and (a few) solutions. *Proceedings of the Workshop on Language Analysis in Social Media*, 80–89.

Gotti, F., Langlais, P., & Farzindar, A. (2014). Hashtag occurrences, layout and translation: A corpus-driven analysis of tweets published by the Canadian government. *Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC'14)*, 2254–2261.

Kessler, R., Lapalme, G., Gotti, F., Outerqiss, A., & Langlais, P. (2018). Et si les réseaux sociaux pouvaient nous aider dans nos choix de carrière? *EGC*, 293–298.

Léchelle, W., Gotti, F., & Langlais, P. (2018). Wire57: A fine-grained benchmark for open information extraction. *ArXiv Preprint ArXiv:1809.08962*.

[More on Google Scholar.](#)

Service

Participant researcher in NLP, [Industrial Problem-Solving Workshops](#), since 2018

Webmaster & developer, Observatoire de linguistique Sens-Texte (OLST), University of Montreal, since 2022

Webmaster & developer, [Canadian Artificial Intelligence Association](#), since 2014

Webmaster, for Prof. Monique Cormier, University of Montreal, since 2012

Member of the organizing committee, 4^e Journée québécoise des dictionnaires, 2012

Personal

I speak French (native tongue) and English. I have dual Canadian/European citizenship. I love biking, botany, and typography.

References available upon request.