



Quality Control & ML Optimization of Data driven & AI based Innovation
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SUMMARY

R&D Engineer with more than 20 years of experience in Communication, NLP, AI and ML for academics, research and the information technology and services industry. Highly skilled in leadership, analytics and creative problem resolution.

TECHNICAL SKILLS

- **Analysis:** pandas, NumPy, Statsmodels.
- **Big Data:** Apache : Spark, Hadoop, Flink, Kafka.
- **Cloud:** AWS, GCP, Microsoft Azure ; IBM Cloud Paks, Teradata.
- **Containers:** Docker, Kubernetes, Apache Mesos.
- **Deployment:** Flask, Django, Streamlit, TensorFlow Serving, Kubeflow.
- **Development:** Visual Studio Code, Posit ; GitHub, GitLab, Git ; Jupyter.
- **Formats:** HTML, SGML, XML, json, AIML, YAML.
- **Graphs:** Neo4J, Gephi, networkx
- **ML:** Keras, TensorFlow, PyTorch, scikit-learn, PyCaret, PyG, MXNet, Caffe.
- **Monitoring:** Apache Airflow, TensorBoard, Neptune AI, WandB.
- **NLP:** spacy, nltk, Wikidata, NooJ.
- **Processing:** Apache: Beam, Storm, Nifi.
- **Programs:** Python, R, Java, JavaScript, C++, Scala, Perl, Prolog, Haskell
- **Queries:** SQL, SPARQL, Cypher.
- **Semantic Web:** RDF, OWL, owlready2, HermiT/Pellet, Protégé.
- **Storage:** SQL/NoSQL, dbeaver, Amazon S3, Google Cloud Storage.
- **Visualization:** PowerBI, Tableau, Shiny, Plotly, Matplotlib, Seaborn, Bokeh, ggplot2.
- **Warehousing:** Apache: Hive, Impala.

EXPERIENCE

- **Aidomena, Experts systems for Data-driven Innovation lead by CDOs & Data professionals** Montreal, CA
Founder - ML-AI-NLU-NLG with ChatGPT, Wikipedia/Wikidata, OpenAlex, Arxiv, HermiT, Neo4J jan. 2023 - present
- **SIA Innovations, IBM Platinum Business Partner - IBM Build Labs - Hydro-Québec** Montreal, CA
AI Client Engineering Lead, Senior Data / ML Engineer / Scientist / Architect / Researcher jan. 2022 - jan. 2023
- **Rocket Science : L'Oréal Canada - Amazon, Ericsson, Kueski** Montreal, CA
Senior Machine Learning Engineer (MLOps, Machine Learning, NLP, Computer Vision) oct. 2021 - jan. 2022
- **Bell Canada (Business Markets), Scale AI Canada's AI Supercluster** Montreal, CA
Machine Learning Engineer, Data Scientist, Data Analyst for ML & NLP applications feb. 2021 - sept. 2021
- **Polyckqalai - Quality Control of Innovation, R&D with AI in North America and Europe** Montreal, CA
Researcher, Founder, Chief Executive Officer, Chief Data Officer, Consultant jan. 2019 - Present
- **Fonds de recherche du Québec Société et Culture (FRQSC), UQAM, TELUQ** Montreal, CA
Doctoral Fellowships - Combinatorial textual metrics and supervised text classification in Wikipedia 2015-2018
- **Université de Lille I - Sciences & Technologies, CUEEP** Lille, FR
Educational Data Mining & Moodle E-learning Webmaster for Teaching French As Foreign Language jul. 2010
- **Pôle Académique Université Libre de Bruxelles - HELB (Business Department)** Brussels, BE
Research Thesis Advisor, Project Manager, Assistant Professor in Communication & Computer Science 2008 - 2011
- **R&D for patents** Brussels, BE
NLP & NLU (Assisted reading) ; Knowledge Management ; Biomechanics - Stretching Machines 2001 - Present

EDUCATION

- **Carnegie Mellon University** Pittsburgh, US
Chief Data Officer Certificate planned for 2027
- **Stanford University** Stanford, US
Artificial Intelligence Professional Program planned for 2026
- **Massachusetts Institute of Technology (MIT) - Professional Education** Cambridge, US
Professional Certificate in Data Engineering planned for 2025
- **Cornell University** Ithaca, US
Machine Learning Certificate Program planned for 2024

- **Harvard University**
Professional Certificate in Data Science Cambridge, US
work in progress
- **IBM Watson & MLOps, Amazon Web Services, Microsoft Azure, Google Cloud Platform** Montreal, CA
Professional Certifications for Solutions in Artificial Intelligence, Machine Learning, Data Science and NLP *work in progress*
- **Université du Québec à Montréal (UQAM) - Université du Québec (TELUQ)** Montreal, CA
PhD candidate in Cognitive computing - Artificial Intelligence ; Success scholarship ; $\approx 90\%$ 2012 – 2019
- **Université de Franche-Comté (UFC)** Besançon, FR
cotutelle - PhD candidate in Natural Language Processing - use of NooJ 2013 – 2019
- **Université Libre de Bruxelles (ULB)** Brussels, BE
Master of Arts in languages and literatures ; High Distinction 2008 – 2010
- **Université Catholique de Louvain (UCL) - Université Libre de Bruxelles (ULB)** LLN-Brussels, BE
Master of Arts in Linguistics; Distinction 2002 – 2006
- **Université Catholique de Louvain (UCL)** Brussels, BE
Bachelor of Arts in Philosophy; Distinction in the first year 1999 – 2001

SOME RECOMMENDATIONS FROM LINKEDIN

- **André Gagnon, Strategist and Designer AI / CX / UX / Service Design / Digital Transformation @ IBM:** Ludovic is a brilliant data scientist who dwells equally well in the technical, the scientific approach as well as in the human understanding of the development of a complex implementation of an AI product. It was a pleasure to have met and collaborated with him on the conception and deployment of IBM Watson Discovery for field technician at Hydro-Quebec. Ludovic abilities to identify and deploy pertinent NLU and NLP methodology to harness tacit and implicit knowledge and make it available through the search engine and assure its relevancy is truly the value added. I had the chance to learn directly from an expert and participate in the crafting of a cutting-edge solution with his hands on and thoughtful approach. Ludovic wise and humorous approach makes it a charm to collaborate and exchange on a still occult discipline that is AI. I highly recommend Ludovic to help you define, architecture and deliver highly complex AI solutions and make sense of the data available and bring value to all your stakeholders.
- **Félix Frenette - Product Owner @ Hydro-Quebec:** Ludovic's expertise has been essential in laying the foundations of our AI and ML solutions to develop best practices. Ludovic: intellect, skill & expertise in DS. First, Ludovic is brilliant and knowledgeable: he constantly keeps his expertise up-to-date. He is passionate about his subject and is naturally interested in current emerging concepts in DS. This attitude is game-changing. He imbibes a lot of novelties and scientific research in his field and reads a lot on the subject, which is constantly reflected in his daily work. His leadership in making the right decisions around data governance and for his clients to recommend appropriate solutions to projects is of crucial value. Ludovic was also able to convey his theoretical expertise pragmatically and concretely, and help us put these solutions in place. It was essential for us. He managed to manipulate big data and help build systems with the governance in place. He was able to derive great value from it, and his expertise in programming on more complex problems was recognized. He has a pedagogical approach to explaining complex technical concepts so that we can understand them well and visualize the vision to be put in place. Thank you for your precious help, I can only recommend you because it shows that you are well ... in your element!
- **Alexsandro Fonseca, PhD - Data Scientist @ Desjardins:** Ludovic has a brilliant, curious and analytical mind. He is very able to understand complex problems and extract the deep meaning of concepts, structures and data. Combined with his incredible skills in NLP and ML, he is capable of bringing in-
valuable insights for any project he participates.
- **Jean-Guy Meunier, PhD, Professor of Text analytics and Cognitive computing @ UQAM:** The expertise of Ludovic is at the cutting-edge of AI applied to information and knowledge database construction, management and recommendation. However, his personal and original signature is his high competence in the two main domains underlying this field : linguistics and computer science. He masters in a scholarly and practical manner the complexity of analyzing texts, of extracting their semantic and communicative content. On the other side, he is highly skilled for translating these tasks into many and most intelligent data mining and learning algorithms.
- **Francis Sesmonde, iWintoo - by CXu:** Ludovic has the capacity and vision to absorb and foresee trends in DS, ML and NLP to bring R&D insights to facilitate software solutions development. [...] You will save time with his recommendations, his previous works and publications will give a quick framework to your objectives and accelerate the pace of your DS works. I highly recommend Ludovic for linguistics, semantics, NLP, ML, and DS R&D.
- **Cédrick Fairon, PhD, Full Professor at UCL, Dean of the Faculty of Philosophy, Arts and Letters, Director of CENTAL:** I first met Ludovic when he was a student in Linguistics and he started to be interested in NLP. He took several of my courses and I remember him as a very dynamic and creative student, impassioned by language studies and quite energized by new technologies. Ludovic has a rich and original academic background that reveals his broad interest for human communication.
- **Zhibin Lu, ML Engineer @SIA Innovations:** Ludovic is a thoughtful and experienced senior data scientist with extraordinary data insight, who knows how to manipulate data and always gets inspiration from it, even from very little data. Ludovic has a solid foundation in NLP and ML, he especially very good at leveraging Wikidata/Wikipedia data. He is very good at semantic analysis, and is good at building knowledge graphs and conceptualize linguistic models. Ludovic enjoys helping people around him and loves to pass on his expertise. During my time working with him, I learned how a senior data scientist uses data, and I worked with him to learn about knowledge graphs, including web3, RDF, OWL, and other interesting techniques. He always has a lot of ideas and is willing to learn new things and share his knowledge. All in all, I have benefited a lot from working with him and I would be very happy to recommend him to you.