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📍 1007 Lausanne, Switzerland
📅 August 30, 1993
🇫🇷 French

AREAS OF EXPERTISE

Information Retrieval

Recommender Systems

Natural Language Processing

Deep Learning

Graph Processing

Reinforcement Learning

LANGUAGES

French (Native)

English (Fluent)

ML LIBRARIES

Pytorch

Tensorflow

Deep Graph Library

🧠 Transformers

JIBRIL FREJ

Ph.D. in Computer Science
Postdoctoral Researcher in Machine Learning
Applied to Education

EXPERIENCE

Postdoctoral Researcher

2022–2024

ML4ED, EPFL, Lausanne, Switzerland

- SubProject lead on Innosuisse Flagship: Learner-centered recommendation Framework
 - Design and implementation of a job-market-oriented course recommender system using LLMs and Reinforcement Learning: [JCRec](#)
 - Design and implementation of a graph-reasoning-based course recommender system using Knowledge Graphs and Reinforcement Learning [CourseRec](#)
 - Supervision of Master Thesis and projects in Recommender Systems
- Design and implementation of a Retrieval Augmented Generation (RAG) system on Educational content [edrag](#)
- Head teaching assistant of the course CS 101 (≈ 600 students). In charge of the exercise sessions and the design and organization of the exam.
- Supervision and mentoring of Ph.D. students.

Technologies: Python, Deep Learning, Recommender System, RAG, NLP, Reinforcement Learning, Docker, Kubernetes, LLMs

Postdoctoral Researcher

2021–2022

Inserm U1209-IAB, La Tronche, France

Using NLP, Graph Processing, and Information Retrieval for various applications in Bioinformatics:

- Differential Gene Expression Analysis [Tutorial](#)
- Drug Adverse Event Prediction
- Biomedical Relation Extraction
- Sentence Classification for Biomedical Abstracts
- Biomedical Entities Similarity
- Textual Information Retrieval System for pdf documents: [irspdf](#)
- Keywords Extraction from pdf, odt, and docx documents: [keywords](#)

Technologies: Python, R, BERT, GNN, Transformers, Deep Graph Library

Ph.D.

2017–2021

Université Grenoble Alpes, LIG, Saint-Martin-d'Hères, France

Incorporation of prior knowledge in Deep Learning models for Textual Information Retrieval.

Technologies: Python, Pytorch, fastText, BERT, BM25, UMLS, DBpedia, etc.

End-of-study internship

Feb–Jul 2017

LIG, Saint-Martin-d'Hères, France

Study and implementation of Neural Language Models for Information Retrieval

Technologies: C++, word2vec, IR Language Models

Stable-Baselines 3

Gymnasium

Scikit-learn

Keras

HOBBIES

CodinGame

Hiking

Cooking

Squash

Internship

Apr–Aug 2016

Altatech sc, Montbonnot, France

Study and implementation of machine learning algorithms for image classification with applications in defect detection on silicon wafers

Technologies: C++, SVM, vl-feat

TEACHING

Head Teaching Assistant (≈ 600 students)

2022–2024

EPFL, Lausanne

Advanced information, computation, communication I (CS 101)

Teaching Assistant (≈ 30 students)

2022–2023

EPFL, Lausanne

Machine learning for behavioral data (CS 421)

Teaching Assistant (≈ 40 students)

2017–2020

Polytech, Grenoble

Supervision of projects and practical work in Java

Teacher (≈ 30 students)

Sep–Nov 2019

IUT2, Grenoble

Teaching of basics of probabilities and statistics

Teaching Assistant (≈ 40 students)

Oct–Dec 2017

Phelma, Grenoble

Supervision of practical work in C language

EDUCATION

Ph.D. student

2017 - 2021

Université Grenoble Alpes

Incorporation of prior knowledge in Deep Learning models for Textual Information Retrieval.

Master Student

2015 - 2017

UGA - IM2AG

Master of Science in Industrial and Applied Mathematics

Bachelor Student

2014 - 2015

UJF - IM2AG

Bachelor of Mathematics and Computer Science

Engineering School Student

2011 - 2014

INSA Rouen

Mathematical engineering department