

FERRAND

G r me

05/08/1993 (29 years old)
69000 LYON

 06 78 53 19 37
 geromeferrand.vercel.app
 gerome.ferrand@gmail.com
 linkedin.com/in/gefe/

Driving license B – own vehicle.



I am currently looking for a permanent (CDI) or fixed-term (CDD) position as an **ML engineer** / **Data Scientist** or a CIFRE Thesis.

My areas of interest include **Network Science**, **Machine Learning** (ML), **Deep Learning** (DL), Natural Language Processing (NLP), **Embedding**, community detection, complex systems, and systems theory.

TRAINING AND DIPLOMAS

2020/2022 : MSc. (HSD+5) AI
(Courses co-accredited with ENS and Centrale Lyon)
(UCBL, Lyon, 69)

2019/2020 : Bachelor's (HSD+3)
Math & C.S.
(UCBL, Lyon, 69)

2018/2019 : DipHE (HSD+2)
Math & C.S.
(UCBL, Lyon, 69)

SKILLS

Linguistics :

French :

Mother Tongue

English :

Professional Ability

Computer Science :

Highly Proficient :

Python, (PL)SQL

BeautifulSoup, FuzzyWuzzy, Flask,
Gensim, Gephi, Git, jupyter, LaTeX,
matplotlib, MongoDB, networkX, NLTK,
noSQL, Numpy, Pandas, PySpark,
PyTorch, Scikit Learn, Selenium,
seaborn, Spacy, ...

Proficient :

C, C++, C#, Java, JS,
D3js, HuggingFace, Keras, Tableau,
Tensorflow, ...

Currently Learning :

R,
AWS, Azure, Cython, Dataiku, Docker,
ElasticSearch, Kubernetes, ...

PERSONALS INTERESTS

Sport :

Skiing/FreeSkiing, Rugby, Bouldering.

Culture :

Science, Geopolitic, Technology, SF,
Travel.

TECHNICAL EXPERIENCES

Oct. 2022 to Present : Independent Research Projects.

- Proof-of-Concept for a precision agriculture drone project:
 - Development and optimization of a YOLO model.
- Job search automation program and labor market analysis:
 - Implementation of scrapers,
 - Data cleaning and standardization,
 - Statistical analysis and similarity measurement.
- Profile and work promotion website:
 - Web development,
 - Educational outreach.

Feb. 2022 to Sept. 2022 : Data Science Research Intern at LIRIS (69).

During my end-of-studies internship, I worked on the automated discovery of scientific article roles using a dynamic citation network enriched by citation context. To address this issue, I carried out the following tasks:

- Extraction and storage of data in a noSQL database,
- Topographic generation and analysis of the network,
- Feature selection, clustering, and classification,
- Semantic analysis and NLP (TF-IDF, word2vec, doc2vec),
- Finally, I explored complementary methods (such as graph2vec, node2vec, edge2vec, GCN/GNN (Graph Neural Network)).

Feb. 2021 to Jun. 2021 : Academic Research Project at UCBL (69).

I conducted an exploratory study of a citation context network in scientific publications. To do so, I performed the following tasks:

- Extraction of data and metadata from a corpus of scientific articles in XML format,
- Generation of the citation network,
- Semantic enrichment through citation context,
- Analysis of the structure and nature of the network.

Feb. 2020 to Apr. 2020 : Academic Research Project at UCBL (69).

As part of a working group, I contributed to the design and development of a data visualization website for spatial and statistical exploration of avalanches in the Alpine region. My responsibilities included:

- Coordinating and managing the project and team,
- Collecting data from specialized websites (using web scraping techniques.),
- Storing, formatting, and cleaning raw data,
- Performing statistical analysis on the data to determine the environmental and behavioral factors that trigger avalanches.

Jun. to Aug. 2019 : Network Infrastructure Intern at Perpignan Hospital Center (66).

Collaboration within the project of restructuring the network infrastructure and its integration into the urbanization of the Hospital Information System (HIS).

- Deployment and configuration of new equipment in compliance with the security requirements of hospital institutions,
- Implementation of remote equipment monitoring to ensure the resilience and reliability of the system in the event of cyber-attacks.

TECHNICAL EXPERIENCES

- **Oct. 2018 à May 2019 : Academic Research Project** at UCBL (69).

Study and design project of NLP modules (categorization, summarization, sentiment analysis, search engine), conducted over a 6-month period in parallel with coursework:

- Conducted a state-of-the-art study on NLP applications and techniques, focusing mainly on statistical methods,
- Maximized the performance of different models in order to implement an ensemble method for each application.

- **Oct. 2015 to Aug. 2018 : Real estate contract management pilot (Work-study)** at SNCF (13).

Managed the multi-technical contract and coordinated service providers in the Grand Sud region (including all the real estate of the SNCF from Toulouse to Marseille) : an annual multi-million euro contract.

- Oversaw the tendering process and validated quotes in compliance with allocated budgets, ensuring rigorous financial management of projects,
- Managed and assessed risks to ensure the safety of service providers and installations, while complying with regulations.