

# Marius Roger

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# Machine Learning Engineer

Looking for a first position in Data Science, focused on ML Ops or R&D.

# **Experience**

April 2024 September 2024

# ML Engineer R&D intern GitGuardian

- Adding context to secrets (security incidents) with NLP (HuggingFace, Ilama.cpp, SkyPilot, AWS EC2)
- Building a relevant generic secrets dataset (Prodigy, Snowflake, DVC, OpenAI)
- Contributing to the secrets detection engine (Python, git, PDM, Linear)

October 2022 June 2023

#### Research assistant LMU Munich

- Large-scale analysis and comparison of French & German LLMs (HuggingFace)
- Review and writing of research articles on NLP techniques and biases : article
- Review of teaching material and grading of the Deep Learning for NLP class

April 2022 July 2022

# ML Engineer R&D intern HrFlow.ai

- Bibliography and experiments on recommender systems, graph neural networks and LLMs
- PoC on the matching of candidates and job offers (PyTorch, HuggingFace)

March 2021 August 2021

## NLP research intern Dauphine PSL

- Design of recurrent models (LSTM & GRU) with Neural ODE (PyTorch)
- Training and evaluation on the PennTreeBank dataset with the perplexity metric

## **Education**

2019 - 2024

#### **ENS Paris-Saclay Diploma**

Top research-oriented school, Computer Science, Data Science and Machine Learning program

2023 - 2024

#### Master 2 IASD Dauphine PSL, Mines Paris, ENS PSL

Machine Learning, Data extraction and storage, NoSQL and distributed computing

- Data science project : Recommender systems and GANs with NumPy, PyTorch and git
- Databases project : Extraction of researchers relationships from DBLP with XML SAX and Neo4j
- NoSQL project : Implementation of iSAX (time series indexing) in Python

2021 - 2022

#### Master 2 MVA ENS Paris-Saclay, Institut Polytechnique de Paris

Machine Learning, Natural Language Processing, Time Series analysis, Audio processing

• Research paper review : NLP, signal processing, time series analysis, graph NNs, biostatistics

2020 - 2021

#### Master 1 MPRI ENS Paris-Saclay

Computer Vision, Deep Learning, Software Engineering, Optimization, Markov Chains

• Software engineering project : Modular audio synthesis/processing program for Linux in C++

2017 - 2019

# Classes Préparatoires aux Grandes Écoles Lycée Camille Guérin

Maths, physics, and computer science training for competitive entrance to french Grandes Écoles

#### Skills

Programming

Python (PyTorch, Pandas, Transformers), Scala (Spark), SQL, OCaml, Bash

Tools

git, SSH, LaTeX, Notion, DVC, Linear, SkyPilot, Snowflake

Relational

Collaborative, Organized, Flexible, Autonomous, Analytic, Curious

Languages

English (C2), Spanish (B2), French (native)

Interests

Music production, electronics for audio processing, handball