

TOM LABIAUSSE

MEng student @CentraleSupélec - Candidate for a Machine Learning Engineer internship in 2024

@ tom01lab@gmail.com

☎ (+33)0651624491

in linkedin/in/tom-labiausse

📧 t0m1ab

📍 Paris, FRANCE

EXPERIENCE

ML Engineer - Document Engineering internship

DOCUGAMI - @San Francisco

📅 Feb 2023 – Aug 2023

- **Goal:** Study multimodal architectures (NLP + Computer Vision) applied to documents from various businesses (insurance, health, law...) and with different formats (image, PDF, docx...).
- Develop and train large algorithms based on SOTA multimodal transformers architectures for visual Question/Answering tasks.

PyTorch

Transformer

Hugging Face

Google Cloud

Linux

ML Engineer - ML project from tabular and temporal data

STELLANTIS - @ParisDigitalLab

📅 Sept 2022 – Oct 2022

- **Goal:** Predict failures and RUL (Remaining Useful Life) of electric cars due to a dysfunctional battery using ML applied to real-world data.
- Performance analysis of ML algorithms like XGBoost and DL methods using RNN and transformer-based architectures such as TabNet.

Python

Features Engineering

PyTorch

RNN

Transformer

Data Scientist Junior - AI robustness research project

SYSTEMX - @CentraleSupélec

📅 Jan 2022 – June 2022

- **Goal:** Investigate the robustness of the neural network based airborne collision avoidance system named ACAS-Xu.
- Statistical study of the weaknesses of the networks with various adversarial attacks (FGSM, Carlini&Wagner, DeepFool...).

Python

Tensorflow

Data visualisation

Adversarial attacks

ML Engineer Junior - Topic Modeling in NLP project

ONEPOINT - @CentraleSupélec

📅 Sept 2021 – Jan 2022

- **Goal:** Set up an algorithm to classify books using their 4th cover to determine their topics.
- Benchmark and finetuning of different strategies: LSA, LDA, BERTopic (DL method built on BERT architecture).

Python

Data cleaning

NLP

LDA

BERT

Clustering

ML Engineer Junior - Computer Vision project using CNN

EAUX CRISTALLINES - @CentraleSupélec

📅 Nov 2020 – June 2021

- **Goal:** Set up an automated classification system of different kinds of waste from pictures.
- Understanding and usage of CNN (VGG-16, AlexNet, ResNet...) and finetuning strategies.

Python

Tensorflow

CNN

Transfer Learning

SQL

EDUCATION

Master of Science - MVA

ENS Paris-Saclay

📅 Sept 2023 - April 2024

- MVA : Mathématiques Vision Apprentissage (Maths Vision Learning)
- **Main courses:** Mathematics - Statistics - Optimization - Time series - NLP - RL - Image processing - Computer Vision

General engineering studies

CentraleSupélec

📅 Sept 2020 – June 2024

- Part of Paris-Saclay University ranked 1st in mathematics by the Shanghai Ranking in 2020, 2021 & 2022.
- **Main courses:** Mathematics - Advanced statistics - Algorithmics - Machine Learning - High performance computing & distributed algorithms - Cryptology - Economy - Philosophy of science

Preparatory class in maths/physics

Lycée Saint-Louis

📅 Sept 2018 – July 2020

- **Courses:** Algebra - Analysis - Probability theory - Physics - Algorithmics - Coding

SKILLS

- **Languages/frameworks:** Python (scikit-learn, pytorch, tensorflow/keras, Django, FastAPI...), Bash, C++, SQL, R, Caml, HTML, CSS, JavaScript, React
- **Tools:** Git, Docker, Google Cloud, Visual Studio Code, Matlab, Latex, Notion
- French (native), English (C1), German (A2)
- Driving license since 2019

HOBBIES

- **Music:** vinyl & hard/pop/progressive rock, metal (Pink Floyd, Led Zep, RHCP...)
- **Sports:** mountain biking, swimming, tennis, running, ski, windsurfing
- **Science:** Books and videos about: Algorithmics - AI - History & Philosophy of science - Quantum physics
- **Teaching:** Mathematics & Excel for undergraduate students