

# Maël FABIEN



## Data Scientist

(23 y.o)

Nationality: France, Luxembourg

+ (00) 41 78 909 14 25

mael.fabien@gmail.com

15 Avenue du Midi, 1820  
Montreux, Switzerland

## Social



<https://maelfabien.github.io/>



<https://github.com/maelfabien>



<https://www.linkedin.com/in/mael-fabien/>

## Stack



Daily user :

- Python
- ML libraries (sk-learn, NLTK, Scipy, OpenCV, Librosa...)
- DL: Tensorflow, PyTorch

Frequent user :

- Spark via PySpark and Scala
- SQL (Postgre, MySQL)
- Cloud : AWS, Google Cloud
- HTML, CSS, Flask

Used in several projects :

- Hadoop, Hive
- Cassandra, MongoDB, Neo4j
- Elasticsearch, Kibana
- R (RStudio), Matlab

## Languages

- French (Mother Tongue)
- English (C2) (Bilingual Baccalaureate)
- German (B2)

## Interests

- ML and Data Science
- Sports (Fitness, hiking)
- Did a 4 months trip end of 2019 to Senegal, Cambodia, Vietnam, New Zealand, French Polynesia, Easter Island, Santiago

## Education



2020 — Present : Ph.D. in Speech processing  
EPFL and Idiap research institute, Martigny (CH)



Ph.D. at Idiap research lab as an EPFL Student on speech processing and graph theory for ROXANNE European project. 23 partners in the project.



2018 — 2020 : Specialized Master in Big Data & Data Science  
Telecom Paris, Paris (FR)

Data Engineering, Machine Learning, Deep Learning, NLP, Computer Vision.



2016 — 2018 : Master of Science in Actuarial Science  
University of Lausanne, Lausanne (CH)

Statistics, Mathematics, Stochastic Processes.



2013 — 2016 : Bachelor of Science in Economics  
University of Lausanne, Lausanne (CH)

Economics, Statistics, Financial Mathematics.



2010 — 2013 : Scientific Baccalaureate, Mathematics Option  
Lycée of Ferney-Voltaire, Ferney-Voltaire (FR)

English International Option, GCSEs and A Levels passed.

## Experience



11.2019 - 12.2019 : NLP Consultant, Orange, Senegal

Created a chatbot to reduce the rate of human answers using weighted Word2Vec and LSTM intent classifier. Gave an NLP lecture in front of data teams.



07.2019 - 11.2019 : Data Scientist Intern, Paris

Algorithm engineering to automatically understand what a user wants to extract from a text by example. Used tree-based structures and genetic algorithms. Worked with back-end engineers. Algorithm currently in the app.

*Python, Algorithm optimisation, Natural Language Processing*



03.2019 - 07.2019 : NLP Data Scientist Intern, Remote

Designed and implemented a Semantic Similarity Search Engine for a messaging service. Implemented Bert for next sentence prediction.

*Python, Search Engine, Hierarchical Embedding, BERT, Transformers*



09.2018 - 06.2019 : Deep Learning Research Project, Paris

Research project for the French employment center on multimodal emotion recognition for Text, Sound and Video. Built a web app on top with Flask.

*Python, NLTK, Keras, Tensorflow, Flask, HTML, CSS*

★ Star 146    🍴 Fork 71



02.2018 - 08.2018 : Non-Life Actuary Intern, Vaudoise, Lausanne

Redesign of a private Accident Insurance product. Statistical analysis, anomaly detection, product pricing (MLE, robustness tests, profit testing, simulations).

*R, VBA, Tableau*

# Entrepreneurship

## 2019: Hackathon Winner

Winner of the 2019 « Hubs as a service » Hackathon. Developed a mobile medical service for rural areas, a booking platform and a pre-diagnosis tool using NLP. Won a 5'000 euros prize.

## 2016 - 2018 : Founder of Wanago

Crowdfunding platform for van acquisition. Jury Prize winner of the Entrepreneurial Contest Start Lausanne after a 6 months competition among 65 startups, with 5'000 euros prize, several vehicles financed.

# Writing

## 09.2018 - Now : Blog Writer

I started writing a data science blog in which I share articles (over 150 so far) and tutorials on Statistics, Machine Learning, Deep Learning, Reinforcement Learning, Data Engineering... and detailed projects from scratch. Blog has been seen by over 60'000 persons.

<https://maelfabien.github.io/>.

## 09.2019 - Now : AI Writer

Contributing to Stat4Decision's blog in French.

## 08.2019 - Now : Editorial Associate

Editorial associate role at TDS. Working on my free time on AI articles review and content creation. Been awarded the « Top AI Writer » badge for my contribution to the platform.

## **EXPLORIUM** 03.2019 - Now : AI Writer

Contributing to Explorium's blog, a Data Science platform startup in Israel.

# Talks

## 12.2019 - Natural Language Processing , Dakar

Gave a 4 hours introduction to NLP (Similarity, Classification, LSTM, Sequence) at Orange.

## 04.2019 - Entrepreneurial experience, Lausanne

Shared my story and how entrepreneurship helped me at Start Lausanne contest.

# Teaching

## 09.2019 - Now : Data Science Instructor

Data Science Instructor for Stat4Decision in the banking industry. *Average grade received for intervention: 9/10.*

## 02.2019 - Now : Machine Learning Instructor

Machine Learning Instructor for VIVADATA Bootcamp. Created course supports and gave over 35 lectures on Stats, ML, DL and Data engineering in *Paris* and *Dakar*.



## 09.2016 - 03.2018 : Student Teaching Assistant

Student Teaching Assistant for the 3rd year Bachelor courses of Corporate and Public Finance, 40%, side of my studies.

# Recent Projects

## Open Machine Learning Tutorials

Published Machine learning tutorials on GitHub (NLP, Computer Vision, Reinforcement learning)

[https://github.com/maelfabien/Machine\\_Learning\\_Tutorials](https://github.com/maelfabien/Machine_Learning_Tutorials)

 Stars **382**

## Voice Gender Detection

Detecting gender based on voice records. I trained a GMM on MFCC features and deployed it on a web application.

<https://github.com/maelfabien/VoiceGenderDetection>

## Mutli-purpose Data Science App

Developed a multi-purpose application gathering pre-trained NLP, Computer Vision and generative models as well as self-trained ones.

<https://github.com/maelfabien/DataScienceApp>

## fsText : Few Shot Text Classification

Created fsText, a few-shot learning text classification library on GitHub, using pre-trained embeddings and siamese networks.

<https://github.com/fsText-suite/fsText>

## What language is this? Language Recognition

Built a Language Recognition web app using Markov Chains and a web scraper for Wikipedia.

[http://maelfabien.github.io/machinelearning/HMM\\_3](http://maelfabien.github.io/machinelearning/HMM_3)

## Data Engineering Project

Processing large amount of data (GDEL database) using AWS EC2, Cassandra and Spark.

<https://github.com/maelfabien/Cassandra-GDEL-Queries>