

# Machine Learning & Data Engineer

6 years of experience

3 industries

7 certificates

in

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As a Machine Learning & Data Engineer with 7 years of experience, my work consists of designing and implementing data-driven solutions to help companies leverage the power of their data.

Practical information:

- Age : 30 years
- Nationality : French
- Residency Status : B Permit holder
- Years of experience : +7 years
- Highest academic degree : Master Of Science in Information Technology

## EXPERIENCES

### Machine Learning Engineer

Cisco - Since July 2024



- Within Outshift by Cisco, Cisco's incubation engine for emerging technologies, my role is to combine my ML and Software Engineering skills to identify and build agentic AI use cases relevant for Cisco.
- Mission 1 : design, implement and maintain a multimodal RAG solution for one of Outshift's GenAI products. Skills : python, PGVector, AWS
- Mission 2 : design and implement a multi-agentic system to help network engineers validate their network configuration changes in simulation and emulation environments before deploying in production. Skills: python (Langgraph, pyATS), Batfish, Cisco Modeling Labs
- Mission 3 : implement key components in an OSS agentic observability stack. Skills : python, opentelemetry, Clickhouse

### ML & Data Engineer

UBS - May 2023 to June 2024 - Full-time - Zurich - Switzerland



- Within UBS' Group Compliance, Regulatory and Governance, my role is to build data-driven solutions for non-financial risk management.
- Mission 1 : implement Databricks workflows to monitor KPIs for Compliance Risk AI models. Tools: python (pandas, pyspark), Gitlab, Databricks
- Mission 2 : refactor AI model's data sourcing using an event-based paradigm. Tools : python (Airflow) Kafka

### Data & Machine Learning Engineer

Coface - October 2019 to April 2023 - Full-time - Paris - France



- Within the Datalab team of the Strategy & Development department, I worked on several Data & ML projects. Work ranges from proof of concept (PoC) to building data pipelines and deployment in production. Following are a few examples of missions I worked on.
- Mission 1: Recommender System. Implementation of a recommender system that suggests companies with high default risk. The algorithm is based on criteria of similarity with the companies already reviewed by the risk underwriters. Tools: Python (pandas, sklearn, pySoT), Gitlab, optimization, Surrogate Modeling, Gower Distance
- Mission 2: Complementary insurance. Automating of product profitability reporting, analyzing customer behavior and segmentation, predictive analysis of price sensitivity. Tools: Python (pandas, sklearn, airflow), Gitlab, Airflow, Docker
- Mission 3: Balance sheet forecast following the Covid crisis. Modeling the impact of the Covid crisis on company balance sheets in order to adapt the Risk underwriting strategy. Tools: Python (pandas, pymongo), Gitlab
- Mission 4: REST API for an external client.  
Design and implementation of REST API for a customer in the banking sector that allows them to search and identify a company, buy default risk scores and payment behavior insights. Tools: Python (Flask, pandas, cx-oracle, sqlalchemy), Docker, Kubernetes, AWS (API Gateway), Elastic Search, Oracle, Gitlab

### Data Science Consultant

Wavestone - March 2018 to March 2019 - Cooperative Education Work - Paris - France



- Within the Machine Learning & Data Lab team, I contributed to the development of the AI offer. I carried out internal R&D work and participated in missions with external clients.

## SKILLS

### Programming Languages & Frameworks

- Languages : python, SQL, Java
- Frameworks : Databricks, Matlab

### ML & Data Engineering

- Data Extraction : cx-oracle, sqlalchemy, pymongo, requests
- Data Processing & Analytics : pandas, pyspark
- Orchestration : Airflow, Databricks
- Model Serving & APIs: Flask and FastAPI
- Machine Learning Modelling : scikit-learn, LightGBM, tensorflow, keras, pytorch
- Generative AI : langgraph, langchain, etc

### Packaging, Continuous Integration & Continuous Delivery CI/CD

- Git / Gitlab
- Docker
- Jenkins
- Puppet

### Databases

- Oracle
- MongoDB
- Elasticsearch
- PostgreSQL
- Clickhouse

## LANGUAGES

🇬🇧 English  
*fluent*

🇫🇷 French  
*native*

🇩🇪 German  
*beginner*

## INTERESTS

### Games

Hearthstone, 7 wonders, splendor

### Chess

President of chess club at school

- Mission 1 : review of the state of the art of Deep Reinforcement Learning with an application to autonomous driving. Tools: python, tensorflow, keras, pytorch, opencv, torcs, airsims.
- Mission 2: implementation of a scanned contract processing tool for a player in the pharmaceutical industry. Tools: python, jupyter notebook, tesseract ocr, nltk, tensorflow, glove.

## Machine Learning & NLP Intern

Orange - August 2017 to January 2018 - Internship - Paris - France



- Within the "Centre de Compétences d'Informatique Cognitive" (Skill Center of Cognitive Computer Science), I carried out POCs (proofs of concepts) on the use of NLP to analyze customer verbatims. Tools: Python, NLTK, Gensim, Keras, Tensorflow, Pandas.
- I contributed to the development of conversational agents intended for Orange employees. Tools: IBM Watson, dialogflow (Ex api.ai) from Google, python, keras, tensorflow, pygal.

## Research Scientist

IMT Atlantique - June 2016 to July 2016 - Internship - Brest - France



- Within the Signal & Communications department, I carried out research work on Spectral Clustering algorithms which resulted in the publication of a conference paper.
- My mission was to implement a similarity function (kernel) for these algorithms and evaluate its performance. Tool: matlab.
- Link for the paper : <https://ieeexplore.ieee.org/document/8450769>

## EDUCATION

From 2015 to 2019 **Master Of Engineering** IMT Atlantique (Ex Télécom Bretagne) - Brest - France  
Generalist degree in Information technology with a specialization in Machine Learning and computer vision.

From 2017 to 2017 **Erasmus Exchange Semester** Reykjavik University - Reykjavik - Iceland  
Academic semester at the School of Computer Science in Reykjavik University.

From 2015 to 2016 **Bachelor's in Mathematics** Université de Bretagne Occidentale - Brest - France  
I took the courses of this bachelor in parallel with my main Master of Engineering at IMT Atlantique (Ex. Telecom Bretagne - Intitut Mines-Télécom) in order to deepen my knowledge and understanding of the following disciplines: topology, general algebra, differential calculus, statistics and stochastic modelling.

From 2013 to 2015 **Preparatory Classes For "Grandes Ecoles"** Classes Préparatoires Aux Grandes Ecoles - MPSI/MP  
Intensive preparatory courses for the french "Grandes écoles" contests.

## CERTIFICATIONS

Apr 4, 2018 -  
[deeplearning.ai](#)

April 4, 2018 -  
[Sequence Models](#)

November 24, 2017 -  
[Convolutional Neural Networks](#)

Aug 22, 2017 -  
[Structuring Machine Learning Projects](#)

Aug 21, 2017 -  
[Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization](#)

Aug 17, 2017 -  
[Neural Networks and Deep Learning](#)

Oct 29, 2016 -  
[Machine Learning](#)