

EDUCATION

CentraleSupélec - Paris-Saclay University

3rd year student - Master of Engineering in Artificial Intelligence; GPA (of 2nd year): 3.67

Advanced mathematics, physics and engineering classes “prépa” (MP*)

Intensive preparatory courses for the french graduate schools; Ranked 11th in entrance exams

Paris-Saclay, France

Sep 2018 – July 2022

Rabat, Morocco

Sep 2016 – July. 2018

EXPERIENCE

Flashbrand

Software Engineer — ML Engineer

San Francisco, CA

Aug 2020 - Aug 2021

- **CI/CD Data Warehousing** Setup, schema design and management of Azure. Built Azure pipelines to automatically build and test code projects, integrated with our Github repositories.
- **Chatbot** Core service for all NLP systems at Flashbrand, currently used on the homepage with the support of a simple-to-use Dialog Management UI. Switch from rule-based dialogues to Rasa, Worked on both fine-tuning (RoBERTa,.) and online serving.
- **Performance Dashboards** Manager dashboards and employees surveying tools. Developed both backend (*NodeJS*) and frontend (*VueJS*). Currently used by 150k+ employees from different LVMH houses (Louis Vuitton, Dior, ...)

ANIMA, iWips — Paris Digital Lab

Software Engineer

Paris, France

Jun 2020 – Aug 2020

- **Microservices Architecture** Implemented Apache Kafka to read, process, and store streams of data coming for a multiplayer game, for better scalability, guaranteed reliability and fast performance.
- **Real-time Dashboard** Developed multiple microservices to perform various model inferences (sentiment analysis, topic modeling..) on the players’ conversation mid-game, summarized in a dashboard that analyzes the players’ behaviour and skills.
- **Security & Load Balancing** Secured players’ audio capture using a HTTPs and SSL connection. Used Docker and Kubernetes for easy deployment and auto-scaling.

SAFRAN — Paris Digital Lab

Data Scientist

Paris, France

Apr 2020 – Jun 2020

- **Machine Learning** Used machine learning techniques to help predict the runway condition using aircraft braking data. (Our best model’s MAE is 0.01, and is currently being developed by SAFRAN’s team for better results)
- **Data Analysis** Identified most prominent factors in runway condition with effective use of data to help SAFRAN take informed decisions.
- **Interpretation** Designed dashboards and presentation decks to present key insights and actionable recommendations to clients.

ALSTOM — Paris Digital Lab

ML Engineer

Paris, France

Feb 2020 – Apr 2020

- **Document Parsing** Used several libraries, such as Tesseract OCR, to parse the various formats (pdf, docx, xlsx..) of documents existing in ALSTOM’s database, and integrated them with the rest of the processing pipeline.
- **Knowledge Graph** Designed a knowledge graph, using state-of-the-art NLP techniques, that helps capture and structure the key entities, and easily access documents from a 20Gb+ database, currently used by 8000+ employees at ALSTOM.
- **Search Engine** Created an internal search engine using Elasticsearch indexing, which uses filters and our structuration of the data, for an easier navigation in ALSTOM’s large databases.

SELECTED INDEPENDENT PROJECTS

- **Centralesupélec’s AI club** Co-founder of the school’s AI club where we share our passion for AI. (*see our projects at automatants.cs-campus.fr*)
- **Math&Maroc** Supervised a team of 5 in the creation of our *online classroom* tool destined to help Moroccan students experiencing hardships during Coronavirus prepare for the national exams. (*450+ courses were given to more than 2000 students*)
- **Deep Learning Specialization - by deeplearning.ai** Mastered theoretical DL concepts, learned their industry applications using Python and TensorFlow, and tackled real-world cases such as speech recognition, music synthesis, chatbots, machine translation, natural language processing, and more. (*Certificate credential: coursera.org/verify/specialization/XCYNXNSD9CVD*)

MOST PROUD OF

- **French Government Scholarship of Excellence** awarded to the first 10 candidates of the french Grandes Ecoles contests.
- **Talk at the Discovery Palace - Paris** presented my *geometric visual hallucinations* research project to a wide spectrum of ages, in a simple and interactive way..

PROGRAMMING SKILLS

Languages: Python, C++, Go, Typescript

Technologies: Azure, Docker, Kafka, React, Node, Tensorflow, Pytorch