Abdeljalil MOUSSA

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2014-2019

Master of Science in Data Science Graduation: February 2022

EPFL - Polytechnical Federal Institute of Lausanne (Switzerland)

Relevant courses: Data Visualization, NLP, Deep Learning, Speech Recognition, Financial Big Data, Computer Vision

Bachelor's degree in Communication Systems

EPFL – Polytechnical Federal Institute of Lausanne (Switzerland)

One-Year International Exchange Program at Lund University (Lunds Tekniska Hogskola) in Sweden

SOFTWARE STACK

Java (Fluent), Python (Fluent), SQL (Fluent), JavaScript (prior experience), C / Haskell / Matlab & R (Academic), Linux / Bash Scripting / Git (Expert)
Tensorflow, Keras, OpenCV, PyTorch, CUDA D3, Tableau, Azure, GCP, AWS, PySpark, Qiskit, Openshift, Docker, Kubernetes, Salt, ReactJS, Dash, Spring, Neo4j

PROFESSIONAL EXPERIENCES

Tetra Laval International - Pully, Switzerland

09/2021 - 02/2022

Data Scientist Intern

- Working on my Master's thesis in collaboration with the award-winning "EcoCloud" Lab at EPFL and Prof. Babak Falsafi
- Developing a Natural Language Processing application (topic classification, sentiment analysis and question answering) capable of detecting emerging risks and opportunities using textual data, and displaying the results on Power Bi dashboards
- Saving a six-figure investment by deploying that model in our internal architecture and which will be used by the "Operations" team and the solution will be re-used to meet the need of multiple internal business initiatives

Credit Suisse - Lausanne, Switzerland

02/2021 - 08/2021

Software Engineering Intern

- Worked on building effective tools for case managers in order to help them create and design tailor-made models
- Speeding up the data analysis processes by designing Microservices in Java (with Spring Boot Applications, ElasticSearch, Netflix Eureka, Zuul, Liquibase and H2), and creating effective global dashboards synced with internal databases (Palantir Foundry, PySpark, Oracle databases and Neo4j)
- Learnt to develop data-driven initiatives, using state-of-the-art DevOps tools (Salt-Stack, Openshift, Jenkins) and automating the product development (CI/CD)

Visium - Lausanne, Switzerland

06/2020 - 09/2020

Junior Machine Learning Engineer

- Built and deployed solutions (Document Classification and Recommendation Engines) to two major clients. These projects improved the user experience, and the clients saved considerable amounts (and time) using the deployed technology
- Worked closely with clients and offered them accurate and adaptable AI solutions considering their internal architecture

Tink AB - Stockholm, Sweden

06/2019 - 09/2019

Software Engineering Intern

- Worked on the Open Banking Project consisting of implementing banks using their Open API. Use of APIs, HTTP protocols, OAuth, Proxy, and financial trusted Certificates. Successfully integrated ten major banks in Europe and exchanged with their IT support teams about possible API improvements
- Learnt the principles of the Fintech industry (hard-working and innovative environment), integration practices (Bazel, Buildkite) and the Agile development approach

SELECTED PERSONAL PROJECTS

Infosys Instep

07/2020 - 09/2020

- $\bullet \ Research \ internship \ (remote) \ done \ in \ partnership \ with \ Infosys \ Bengalore \ (India) \ and \ Dr. \ Vijayraghavan \\$
- Sped Up the risk management phase in classical Portfolio Optimization using Amplitude Estimation (Quantum Computing) through the Qiskit SDK. Implemented a long-term strategy on international markets for quadratic speed-up

Nordea Research & Analysis Competition, 1st Place

09/2018 - 01/2019

- Development of a new Trading System on the stock market, based on Sentiment analysis generated by several social medias and using Natural Language Processing. Established the pipeline from data gathering to automatic investment with a trading platform. Report produced and published on the LINC Association portal.
- Won the 1st prize and spent a week interning in the Nordea Front-Office department (largest bank in Scandinavia)

The Finance Assocation EPFL (President)

05/2017 - 09/2018

• Worked on building long-term partnerships with companies in the Financial industry (EY, Swissquote) and organizing events such as the EPFL Trading Game, which is the largest Trading competition in Swizterland. Increased the associative budget by 50,000 CHF

SELECTED ACADEMIC PROJECTS

Understanding French Voters - Data Visualization Project

02/2020 - 06/2020

- \bullet Semester Project done as part of the Master's course "Data Visualization" at EPFL, Graded 6 over 6
- Implemented extensive visualizations on D3.js (javascript) about the correlation between socio-economic status of voters and the elections results. Learnt how to present a complex visualization project in an intuitive manner (website, video and report)

COVID-19 Survey Project

09/2020 - 02/2021

- Analyzing 14,000 responses from 13 countries in 8 languages including textual accounts of personal opinions towards the national situation around COVID-19. Project done in partnership with the DLAB (Data Science Lab), Graded 5.5 over 6
- Developing automatic techniques for machine translation and question answering models based on XL-NET & BERT

SKILLS

Languages: French (Mother Tongue), Arabic (Mother Tongue), English (Fluent), Spanish (Professional)

Activities: Competitive Golf for +10 years, Working on part-time projects for the Junior Entreprise EPFL (front-end development for small companies)