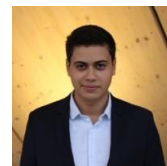# Abdeljalil MOUSSA

Moroccan, Born on November 17th, 1996
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EDUCATION	**Master of Science in Data Science (minor in Financial Engineering)**	**Graduation: Feb. 2022**
	EPFL – Polytechnical Federal Institute of Lausanne	*Lausanne, Switzerland*

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

Bachelor's in Communication Systems	**June 2019**
EPFL – Polytechnical Federal Institute of Lausanne	*Lausanne, Switzerland*

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

EXPERIENCE	**Credit Suisse**	**02/2021 – 08/2021**
	Software Engineering Intern	*Lausanne, Switzerland*

- Worked on building effective tools (IT Compliance) for case mangers 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 and H2), and creating effective global dashboards synced with internal databases (Palantir Foundry, PySpark and Oracle)

- Learnt to work in close collaboration with a team of senior full-stack developers, using new DevOps tools (Salt-Stack & OpenShift)

Visium	**06/2020 – 09/2020**
Junior Machine Learning Engineer	*Lausanne, Switzerland*

- Firm based at EPFL's Innovation Park producing cutting-edge tailored ML solutions and products such as AI Research Assistant or AI document management systems. Visium has more than 30 major clients in Switzerland.

- 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	**06/2019 – 09/2019**
Software Engineering Intern	*Stockholm, Sweden*

- Part of the Integration Team, responsible for integrating the banks (clients) to the Tink Platform, meaning allowing users to have access to their bank accounts, making transactions and any other financial needs on the same platform.
- Worked on the Open Banking Project consisting of implementing banks using their Open API. Use of APIs, HTTP protocols, Proxy, and financial trusted Certificates. Successfully integrated ten major banks in Europe.
- Learnt the principles of the fintech industry (hard-working and innovative environment). Learnt how to develop APIs and many Object-Oriented paradigms in Java. Finally, I learnt about the Agile software (back-end) development approach.

SELECTED PERSONAL PROJECTS	**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) at EPFL.
- Developing automatic techniques for machine translation and question answering models based on XL-NET & BERT.

Nordea Research & Analysis Competition (1st Place)	**09/2018 – 01/2019**
LINC Research and Analysis Association	*Lund, Sweden*

- 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 platform.
- Won the 1st prize and spent a week interning in the Nordea Front-office department (largest bank in Scandinavia).

Infosys Instep	**07/2020 – 09/2020**
Portfolio Optimization with Monte-Carlo Simulations and Quantum Algorithms	*Lausanne, Switzerland*

- Research Internship (remote) done in partnership with Infosys Bengalore (India) and Prof. 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.

SELECTED ACADEMIC PROJECTS	**Understanding French Voters – Data Visualization Project**	**02/2020 – 06/2020**

- 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).

The Finance Association EPFL	**05/2017 – 09/2018**
President	

- Worked on building long-term partnerships with companies in the Financial industry, organizing events such as the EPFL-HEC Trading Game, which is the largest student Trading competition in Switzerland. Increased the associative budget by 60,000 CHF.
- Developed leadership, management, negotiation and presentation skills. Developed my emotional intelligence skills.

SKILLS	**Programming**: Java, C, JavaScript, Python, R, Haskell, SQL, Matlab, Linux / Bash Scripting
	Software Stack : Tensorflow, Keras, OpenCV, PyTorch, D3, CUDA, Git, Azure, Jira, GCP, AWS, Docker, PySpark, Qiskit
	Languages: French (Mother Tongue), Arabic (Mother Tongue), English (Fluent, IELTS 7.5), Spanish (Professional)