Matthieu Saussaye

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PROFILE

I trained as a signal processing engineer with an entrepreneurial semester, which I completed with a Data Science semester at **EPFL.** I just finished my engineer contract with Datapred as a **Data Scientist project manager**. My previous experience at Datapred as well as my taste for entrepreneurial environment has developed in me a strong attraction for Start-Ups that generate value by finely using Mathematics and Data Science.

ABOUT ME

I like to learn new Data Science related skills such as computer languages or mathematical concepts. I'm comfortable with English. I find it satisfying to have strong interactions with clients and drive with my team projects through the end. I am autonomous, disciplined and I learn quickly. I regularly practice calisthenics teaching me to surpass myself. Always curious, I hosted my own entrepreneurship podcast during engineering school.

PROJECTS (PROFESSIONAL & ACADEMIC)

1) Constraint optimization for traders (Datapred)

- Mathematical translation of customer constraints.
- Financial intelligence, extraction of contextual data.
- Price forecasting and model tuning using sequential Machine Learning (**Pandas, Scikit, Xarray**).
- Constraint optimization with OR-Tools.
- Packaging and test coverage with Pytest.

3) Stochastic route planner (EPFL). Link to video

- Preprocessing of SBB (Swiss Railways) data. Pandas
- Graph modelling and shortest path algorithm.
- Use of route certainty based on the gaussian distribution of transport times between real and SBB forecasts. (**Kafka, Spark**).

SKILLS

Data Libraries: Pandas, Xarray, Scikit-learn, Pytorch,

OR-Tools, Numpy, Optuna, Spark.

<u>Development tools</u>: **Git, pytest, AWS, Docker**

EDUCATION

EPFL (ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE) – Computer Science

Feb 2020 - August 2020

During this exchange semester, I learnt a lot on Data Science (**Spark, Hive, Pandas, Kafka**..), Machine Learning models (**Scikit-Learn**), Deep Learning (especially **Pytorch**), and Signal Processing.

GRENOBLE-INP Phelma – Signal Processing

Sept 2018 – Jan 2021

Engineering cycle specialized in Signal Processing (Stochastics, Digitals, Speech, Electronics) and Computer Science (Matlab, C++).

I completed my technical skills with **Business Expertise** (Business intelligence, Corporate Finance, Strategy, Management) during my last semester.

PROFESSIONAL EXPERIENCES

DATAPRED (Lausanne, CH) - Start-Up

Feb 2021 - Aug 2021

Time series machine learning project management

- Forecasting commodity price volatility with machine learning. (Plastic FOB, EU CO2 Emissions..)
- Constraint optimization project for Saipol traders.
- Packaging, Test coverage, Git versioning
- Strong interactions with customers.
- Contextual market interpretation. Link to article

SAFEHEAR (Grenoble, FR) - Start-Up

Sept 2020 – Feb 2021 (2 weeks per months)

Product management - Innovation consulting

- Innovation on the embedded speech processing and denoising system (Matlab, PurePath).
- Interaction with researcher.
- Normative intelligence, participation to fundraise.

NXP Semico. (Caen, FR) - Multinational Company July 2020 - Sept 2020

Assistant Engineer Internship

- KNN algorithm dedicated to Anomaly Detection on NFC signals. (**Scikit-learn**) **UML Diagram** and UI.