

Hugo Le Moine

DATA SCIENCE · PYTHON PROGRAMMING

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Data scientist apprentice with 3 years of experience in leading data analysis and applying machine learning methods to industrial and technological challenges. Looking to secure a data scientist position starting September 2021.

Work Experience

Airbus Commercial Aircraft — Acoustics Department

Toulouse, France

DATA SCIENTIST APPRENTICE

Sep. 2018 — (Aug. 2021)

- **Anomaly detection** in flight recordings and automatization of the cleaning: costs and time slashed by >90% .
- **Data analysis**: trend monitoring of production quality and root cause analysis of identified drifts ; identification of contributors to specific aircraft noise variability.
- **Clustering** of flight trajectories from large volumes (>1TB) of high-dimensional data, to improve noise map generation and facilitate traffic growth simulations.
- **Optimization** of blade design: improved noise level while preserving efficiency, using genetic algorithms and surrogate modeling (deep learning).

Projects

University of Waterloo — Ubiquitous Health Technology Lab

Waterloo, Canada

RESEARCH PROJECT IN COOPERATION WITH UTC

Sep. 2020 — Jan. 2021

- Analysed and cleaned motion data from 100 000+ smart thermostats (>600GB of data).
- Prediction of the number of occupants in homes to study the impact of the confinement on habits.

SNCF — French National Railway Company

Paris, France

EXPERIMENTAL TEAM PROJECT, SUPERVISED BY SNCF RESEARCHERS

Feb. 2020 — June 2020

- Optimized the economic performance of a high-speed train by searching the most efficient design of operation.
- Reduced energy consumption and respected a constraint of delay, using dynamic programming.

Education

University of Technology of Compiègne (UTC)

Compiègne, France

5-YEAR COMPUTER SCIENCE AND ENGINEERING DEGREE (EQUIV. MSc) — GPA: **4.49/5.00**

Sep. 2015 — expected Aug. 2021

- Computer Science — algorithms, data structures, programming (object-oriented, logic), testing
- Information Technology — networks, cloud, databases
- Operations Research — optimization, routing, logistics
- Mathematics & Statistics
- Economics, competitive intelligence, business strategy

Riga Technical University

Riga, Lettonie

6-MONTH EXCHANGE PROGRAM (ERASMUS)

Août 2017 — Jan 2018

- Courses taught in English — Artificial Intelligence, programming, business analytics, IT project management

Skills

Python	Data processing (pandas, numpy, pyspark, dask) · Data visualization (matplotlib, seaborn, plotly) Machine learning (scikit-learn, keras, XGBoost) · Optimization (scipy, pymoo)
Programming	SQL, C/C++, Prolog, HTML/CSS, (basics: R, PHP, Lisp, x64 Assembly)
DevOps	Linux, Git, AWS, Azure, Palantir Foundry (Skywise)

Languages

French (native) · English (C1 - TOEIC 985/990) · Spanish (B2) · Chinese (HSK3) · Latvian (A1)

Extracurricular Activity

Since 2018 **Training Manager & Photographer**, Pics'art — *photography skills development organization*
2018 — 2019 **Local Representative, Head of Communication**, Erasmus Student Network Compiègne
2016 — 2017 **President**, La Foulée UTCéenne — *running club*
2015 — 2017 **Volunteer Rescue Worker**, La Croix Blanche — *first-aid organization*