# 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

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

## Languages

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

## Extracurricular Activity

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| 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* |