



# Hugo Le Moine

DATA SCIENCE · PYTHON PROGRAMMING

☎ +33 6 35 26 40 40 | ✉ hugo.le-moine@outlook.fr | in hugo-le-moine  
🏠 hugolmn.github.io | 📷 hugolmn

*Soon to graduate data scientist apprentice with 2+ years of experience and a proven ability to use machine learning in an innovative way. 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)*

- **Automatization** of the elimination of noise pollution in flight recordings by designing an **anomaly detection** pipeline: costs slashed by >99% and required time reduced by >90%.
- **Data analysis**: highlighted production quality drifts and identified root causes ; determined contributors to specific aircraft noise variability.
- Performed **multi-objective optimization** of design : improved performances at constant noise, using evolutionary algorithms and **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).
- Predictions 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**.

## Skills

<b>Python</b>	Data processing (pandas, numpy, spark, dask) · Data visualization (matplotlib, seaborn, plotly)
<b>Programming</b>	Machine learning (scikit-learn, keras, XGBoost) · Optimization (scipy, pymoo)
<b>Database</b>	SQL, C/C++, Prolog, HTML/CSS, (basics: R, PHP, Lisp, x64 Assembly)
<b>DevOps</b>	MySQL, PostgreSQL, MondoDB, Oracle, neo4j
	Linux, Git, Docker, Azure, Anaconda

## Langues

Français (native) · English (C1) · Spanish (B2) · Chinese (HSK2) · Latvian (A1)

## Education

### University of Technology of Compiègne (UTC)

*Compiègne, France*

5-YEAR COMPUTER SCIENCE AND ENGINEERING DEGREE (EQUIV. MSc) — CGPA: **4.43/5.00**

*Sep. 2015 — expected Aug. 2021*

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

### Riga Technical University

*Riga, Lettonie*

6-MONTH EXCHANGE PROGRAM

*Août 2017 — Jan 2018*

- Courses taught in English — AI, programming, business analytics & project management

## 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*