



Hugo Le Moine

DATA SCIENCE · PYTHON PROGRAMMING

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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

DATA SCIENTIST APPRENTICE

Toulouse, France

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 blade design: improved performances at constant noise, using evolutionary algorithms and **deep learning**.

Projects

University of Waterloo — Ubiquitous Health Technology Lab

RESEARCH PROJECT IN COOPERATION WITH UTC

Waterloo, Canada

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

EXPERIMENTAL TEAM PROJECT, SUPERVISED BY SNCF RESEARCHERS

Paris, France

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

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

Languages

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

Education

University of Technology of Compiègne (UTC)

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

Compiègne, France

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

6-MONTH EXCHANGE PROGRAM

Riga, Lettonie

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*