

# Hugo Le Moine

DATA SCIENCE & ENGINEERING · PYTHON PROGRAMMING

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*Data scientist with 5 years of experience leveraging data science in healthcare and aerospace industries.*

## Work Experience

### MSD France — CoE Insight, Analytics & Data

Paris, France

SENIOR DATA SCIENTIST

Jan. 2023 — Now

Working for the oncology business unit, customer engagement, omni-channel communication.

### Pierre Fabre Group — CoE Data

Lavaur, France

DATA SCIENTIST

Sept. 2021 — Nov. 2022

- Key Opinion Leader mapping platform developed from scratch: >100 users, 100k-1M€ saved annually.
- NLP applied to clinical trials, to automate database crossing: time cut by >1000 hours annually.
- Network and graph theory applied to employees interactions, to monitor the organizational effectiveness.

### Airbus Commercial Aircraft — Acoustics Department

Toulouse, France

DATA SCIENTIST APPRENTICE

Sept. 2018 — Aug. 2021

In charge of exploring and testing potential data science use-cases within the department, including:

- Automation of flight data cleaning using anomaly detection methods : costs and time cut by >90%.
- Optimization of engine design to increase efficiency using genetic algorithms and neural networks.

## Academic Projects

### University of Waterloo — Ubiquitous Health Technology Lab

Full Remote, Canada

RESEARCH PROJECT IN COOPERATION WITH UTC

Sept. 2020 — Jan. 2021

- Analyzed 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 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 high-speed trains 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**

Sept. 2015 — Aug. 2021

- Computer science, information technology, databases, operations research, mathematics, statistics.
- Economics, competitive intelligence, business strategy.

### Riga Technical University

Riga, Latvia

6-MONTH EXCHANGE PROGRAM (ERASMUS)

Aug. 2017 — Jan. 2018

- Courses in English — AI, object-oriented programming, business analytics, IT project management.

## Languages

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

## Extracurricular Activity

- Since 2021 **Side-projects**, Quantified Self App, Twitter Bot
- 2018 — 2021 **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*

## Tech Stack

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### Programming Languages

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- Python · C · C++ · R

### Data Science

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- **Data processing:** pandas · numpy · pyspark · dask · scipy
- **Data visualization:** tableau · matplotlib · plotly · altair
- **Machine learning:** scikit-learn · keras · tensorflow · XGBoost · spaCy

### Databases

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- **SQL:** MySQL · PostgreSQL · Snowflake · CockroachDB · SQLite
- **NoSQL:** MongoDB · Neo4j

### Web Apps

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- **Frameworks:** Dash · Flask · Streamlit
- **Web design:** HTML · CSS · Bootstrap

### IaaS & PaaS

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- **Azure:** VMs · Pipelines · DevOps · Databricks · Database for PostgreSQL
- **GCP:** Cloud Functions · Cloud Run · Artifact Registry · Scheduler · Pub/Sub · Drive API
- **AWS:** EC2 · S3
- **Palantir Foundry:** Contour · Quiver · Code Repositories · Slate
- **Dataiku:** DSS
- **Heroku:** Dyno · Postgre

### DevOps

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- **VCS/SCM:** git · GitHub · GitLab
- **CI/CD:** GitLab CI/CD · Azure Pipelines
- **Testing:** PyTest · Selenium
- **Deployment:** Docker · Kubernetes · Portainer
- **Monitoring:** Kibana · Portainer

### Development Environment

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- **Operating Systems:** Windows · Linux
- **IDEs:** VS Code · Jupyter · Google Colab
- **Package and env management:** Anaconda · PyPI