

Hugo Le Moine

DATA SCIENCE · PYTHON PROGRAMMING

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Data scientist with 4 years of experience leveraging data science in healthcare and aerospace industries.

Work Experience

Pierre Fabre Group — Data Center of Excellence

Lavaur, France

DATA SCIENTIST

Sep. 2021 — now

- Created a Key Opinion Leader identification and mapping platform from scratch: 100k-1M€ saved annually.
- NLP applied to clinical trials, automated chem-genomics database crossing: screening time cut by >1000 hrs.
- Network and graph theory applied to email interactions, to monitor the organizational effectiveness.

Airbus Commercial Aircraft — Acoustics Department

Toulouse, France

DATA SCIENTIST APPRENTICE

Sep. 2018 — Aug. 2021

- Anomaly detection in flight noise recordings and automation of the cleaning: costs and time cut by >90%.
- Data analysis to monitor production quality and perform root cause analysis of identified drifts.
- Clustering of flight trajectories to improve noise map accuracy and facilitate traffic growth simulations.
- Optimization of engine design to increase efficiency using genetic algorithms and neural networks.

Academic 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 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**

Sep. 2015 — Aug. 2021

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

Riga Technical University

Riga, Lettonie

6-MONTH EXCHANGE PROGRAM (ERASMUS)

Août 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 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*

Tech Stack

Programming Languages

- Python · C · C++ · R

Data Science

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

Databases

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

Web Apps

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

IaaS & PaaS

- **Azure:** AKS · VMs · Functions · Pipelines · DevOps · Databricks · Database for PostgreSQL.
- **GCP:** Cloud Functions · Scheduler · Pub/Sub · Secret Manager · Drive API.
- **AWS:** EC2 · S3.
- **Palantir Foundry:** Contour · Quiver · Code Repositories · Slate.
- **Heroku:** Dyno · Postgre

DevOps

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

Development Environment

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