

CLEMENT LABRUGERE

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I am a business acumen **Data scientist** with a solid hands-on expertise in data engineering, machine learning and optimization. I thrive in applying cutting edge data science technologies to complex problems resolution in dynamic environments, collaborating both with business and technical experts.

skills

Methods

- Supervised & unsupervised machine learning
- Simulation and optimization

Programming

- Python, SQL, JS/TS
- git (github & gitlab)
- Cloud computing (AWS/Azure)
- Docker

DS frameworks & tools

- Pandas, numpy, SciPy
- Scikit-learn, Pytorch, XGBoost/LGBM
- Plotly, PowerBI, Matplotlib
- FastAPI, Streamlit, Dash

Database engineering

- PostgreSQL
- Microsoft SQL Server
- NoSQL

personal projects

- Packaged machine learning model exposed with FastAPI
- Streamlit application to optimally balance a portfolio
- Wide-Resnet from scratch in Pytorch to classify images
- 10 machine learning algorithms in Numpy only

languages

French native ●●●●●

English business fluent ●●●●●

Spanish beginner ●●●●●

Chinese beginner ●●●●●

experience

Data Scientist & Data Projects Leader – Air Liquide

2019 → ongoing
Paris, France

- **Lead Data Science projects** from initial framing to deployment: data engineering and analysis, development of machine learning or optimization models and deployment in production
 - > Implemented an optimization model to suggest H2 and CO production policies on a network so to maximize CO2 allowances surplus under the EU ETS Phase 4 scheme to limit risk exposure and provide critical insights
 - > Built a hierarchical forecast model estimating the helium demand on the US market to improve helium supply, reducing ISO hold time and cutting ISO inventory requirement by up to 50%
 - > Developed a methodology and simulation model to benchmark new revenue models in order to support the design of disruptive commercial offers while managing risk and suggest price points
 - > Delivered an end-to-end BI solution for EU-wide monitoring of medical gases operations in 2 weeks during the COVID crisis to manage bottlenecks
- In charge of internal Data Science competitions federating a community of 300 data science enthusiasts within the company

Data Analyst – Air Liquide

2017 → 2019
Frankfurt Am Main, Germany

- Developed and deployed an end-to-end BI solution to monitor industrial performance with over 1000 users, several dashboards and allowing self BI by exposing the designed data model
- Performed various statistical exploratory data analysis: advanced SQL queries, data mining, modeling and visualizations for business stakeholders
- Product Management of an internal reporting solution and managing a team of external developers for maintenance and feature development

Planning Engineer intern – Total E&P

april → august 2014
Pointe-Noire, Congo Republic

- Developed a planification tool for offshore operations that automatically loads, visualizes and detects potential planning interferences to ensure smooth operations of subsea equipment installation

education

MSc. in Mechanical Engineering

Shanghai Jiao Tong University

2014 → 2016
Shanghai, China

Specialization in numerical analysis applied to fluid dynamics, heat transfer and solid mechanics

Master's degree in Engineering and Management

Ecole Centrale de Lille

2012 → 2014
Lille, France