

# CLEMENT LABRUGERE

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Experienced **Data Scientist** in data processing, data mining, predictive modeling, optimization and visualization to solve complex business problems, I aspire to master all the components of machine learning algorithms development, deployment and monitoring workflows.

## 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 ML model exposed with FastAPI
- Streamlit application to rebalance a portfolio
- Wide-Resnet from scratch in Pytorch to classify images
- 10 classical ML algos implemented in Numpy

## languages

**French** ●●●●●  
native

**English** ●●●●●  
business fluent

**Spanish** ●●●●●  
basic

## experience

### Data Scientist / Data Projects Leader – Air Liquide

2019 → ongoing

Digital Factory | Paris, France

- **Deliver Data Science projects** from initial framing to deployment: **data engineering & analysis, development of optimization/machine learning models** and support for deployment in production, in an agile mode
  - > Implemented an **optimization model** to suggest H2 production policies on a network so to maximize CO2 allowances surplus under the ETS Phase 4 scheme of the European Commission
  - > Built a **hierarchical forecast model** estimating the helium demand on the US market to improve raw product supply and dispatch. Packaged and supported **model deployment in Azure**
  - > Produced a **methodology and simulation model** to estimate the impact of new revenue models on revenue streams in order to support the design of disruptive commercial offers while managing risk
  - > Delivered an **end-to-end BI solution** for EU-wide monitoring of medical gases operations in **2 weeks** during the COVID crisis
- In charge of internal Data Science competitions federating a community of 300 data science enthusiasts within the company.

### Data Analyst – Air Liquide

2017 → 2019

Large Industries | Frankfurt Am Main, Germany

- **Developed and deployed an end-to-end BI solution** to monitor industrial performance (>1000 users worldwide)
- **Performed various statistical exploratory data analysis:** advanced SQL queries, data mining, modeling and visualizations for business stakeholders
- **Product Management** of an internal reporting solution (front & backend) with external developers for maintenance and feature development

### Planning Engineer intern – Total E&P

april → august 2014

Moho Nord Project | Pointe-Noire, Republic of the Congo

- 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

2014 → 2016

Shanghai Jiao Tong University | Shanghai, China

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

### Master's degree in Engineering and Management

2012 → 2014

Ecole Centrale de Lille | Lille, France