

**Data Scientist**

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Avignon, France

MOHAMED CHNAFY



**INTERESTS**

Basketball

Hiking

**Programming Languages**

Python | R | SQL

C++ | Java | Julia | Scala | Matlab

**SKILLS  
Tools & Technologies**

**Machine Learning & Deep Learning**: Scikit-learn, TensorFlow, PyTorch, Keras, FastAI

**Data Visualization**: Matplotlib, Seaborn, ggplot2, Tableau, Power BI, Streamlit, DASH, Rshiny

**Big Data**: Apache Spark, Hadoop, Hive, Kafka

**Cloud Computing**: AWS, Google Cloud Platform

**Databases**: PostgreSQL, Oracle, IBM Db2, PostGIS

**Version Control**: Git

**Containerization**: Docker

**E&P Software & Formats:**

Petrel, EarthQuick, LAS, DLIS, SEG-Y, WITSML

**Analytics**

Soil parameter prediction

Real-time monitoring systems

Well logging and seismic data analysis

Reservoir characterization

Real-time sensor data processing

Anomaly detection and time series

Advanced statistics and geostatistics

Signal processing

Performance monitoring

Data management

**EDUCATION**

**Specialized Master’s Degree, Geo Data Management for Energy Mix, IFP School (French Institute of Petroleum), Paris, France, 2024 - 2025**

Georesources (E&P workflow, wireline logging, well testing, RPE tools, Reservoir data), Data Management (Data governance, Actors & companies in DAMA, Data life cycle & data quality, Data model & reference data), Project Management (Certificate Associate in Project Management (CAPM)), Geomatics/GIS (Geodesy, Reference system, Photogrammetry, Topography, GIS/SQL, Spatial calculations)

**Master’s Degree in Applied Mathematics, Data Science, 2019 - 2020**

*Claude Bernard University Lyon 1*

Machine Learning, Deep Learning, Cloud, Big Data Analytics, Data Mining, Visualization

**Master’s Degree in Applied Mathematics and Statistics, 2018 - 2019**

*Claude Bernard University Lyon 1*

Probability, Statistics, Time Series, Numerical Analysis, Optimization, Signal Processing  
Project: Image denoising using Gaussian mixture models and classification algorithms

**Bachelor’s Degree in General Mathematics, 2016 - 2018**  
 *University of Avignon*

Strong foundation in mathematics, probability, and statistics

**PROFESSIONAL EXPERIENCE**

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| **Data Scientist - Fondasol, Avignon, France, 12/2020 - 12/2023** |  | 2023 |  |  |  |  |  |  |

* Design and deployment of machine learning and geostatistical models for geotechnical characterization: 30% improvement in predictive accuracy of soil mechanical properties and implementation of an anomaly detection system for risk zone identification.
* Application of optimization and deep learning algorithms for geotechnical survey planning: 20% reduction in investigation costs and 40% acceleration in soil reconnaissance data processing.
* Development of a PostgreSQL-based big data architecture and creation of geospatial dashboards (R Shiny, Dash, Streamlit) for real-time soil reconnaissance data monitoring.
* Led technological intelligence efforts, integrating 3 new techniques combining geostatistics and machine learning to enhance soil parameter prediction, increasing model accuracy by 20%.

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| **NLP Research Intern - LIRIS, Lyon, France, 03/2020 - 09/2020** |  |

* Development of a student assistance chatbot for LIRIS laboratory, providing information about academic programs, curricula, and university operations.
* Significant reduction in student query response time and improved accessibility to administrative information.
* Python implementation using PyTorch and TensorFlow.
* Scientific literature review for state-of-the-art NLP research.

**LANGUAGES**

French - Native

English - C1 Level

Data Scientist with 3 years of experience, currently pursuing a Specialized Master’s in Geo Data Management for Energy Mix at IFP School (French Institute of Petroleum). Specialized in predictive modeling and geostatistics applied to the oil and energy sectors. Strong experience in complex data analysis and AI solution development for industrial applications. Proficient in cloud and big data technologies for oil data processing. Seeking an internship starting April 2025.

[Online Portfolio](https://mohamedchnafy-ds.github.io/portfolio/)