



## Summary

I am a Data Engineer at the end of a Ph. D. thesis in Biostatistics.

Passionate by Data Analysis and web development, I enjoy programming and automating routine tasks on web interfaces.

Last 03 years, I have worked on spatial analysis of seafloor data. I have proposed Machine Learning based methodology and algorithms for geomorphological mapping.

## Education

2020 | Master's Degree

Applied Mathematics and Computer Science  
UNIVERSITY OF LILLE (FRANCE)

2017 | Master's Degree

Econometrics and Quantitative Finance  
UNIVERSITY CHEIKH ANTA DIOP (SENEGAL)

2011 | A-level

Scientific option  
COURS SACRE-COEUR (SENEGAL)

## Languages

FRENCH	●	●	●	●	●	●
ENGLISH (B1 – CECR)	●	●	●	●	○	○
SPANISH	●	●	●	○	○	○



## SKILLS

### ❖ Machine Learning

- Data wrangling
  - Cleaning, Missing data and outliers handling, feature engineering.
    - R: tidyverse, dplyr, stringr, etc. | Python: Numpy, Pandas, SciPy.
- Explanatory analysis
  - Univariate / Bivariate / Multivariate and Correlation analysis, Visualization.
    - R: FactoMiner, ade4, ggplot2, plotly, etc. | Python: Matplotlib, Seaborn.
- Supervised / Unsupervised Learning - Regression, Classification, Dimensionality reduction, Clustering
  - R: caret | Python: Scikit Learn, TensorFlow.

### ❖ Big data

- High Performance Computing (HPC)
  - Cluster MESO@LR.
- Parallel computing
  - Parallel, Multidyplr.

### ❖ Programming Languages

- R, Python, SAS, SQL, VBA, LaTeX, HTML, CSS, PHP, Java Script, Bootstrap.

### ❖ Softwares / IDE

- RStudio, Jupyter Notebook, Azure ML, Anaconda, Git, Github.
- Tableau, Gretl, Eviews, Stata, GeoDa
- Excel, PowerPoint.

### ❖ Databases Systems

- MySQL, DB Browser, PostgreSQL, Access, SQL Server.
- Xampp, PhpMyAdmin.



## CERTIFICATES

- ❖ SQL pour la Data Science de A à Z (analyse de data réelles)
  - ❖ SAS PROGRAMMING 1: ESSENTIALS
- ❖ Python 3 : Formation intensive à la programmation
  - ❖ Machine Learning with Scikit Learn
  - ❖ R Package development

## Work Experience

### Ph. D. student in Biostatistics

Institut Montpelliérain Alexander Grothendieck (IMAG)

Montpellier University | France

Oct. 2020 to present

- Propose a Machine Learning based methodology to automate seafloor geomorphology mapping.
- Communication through seminars, international conferences, colloquia, ..., to share the results of my research.
- Develop skills around ethics and reproducibility in research, Data management, High Performance Computing (HPC), R packages development, etc.
- Teach Statistics to university students.

### Spatial Data Analyst (intern)

Lille University | France

Feb. - Aug. 2020

- Data wrangling : Data cleaning, Missing values handling, Feature engineering.
- Explanatory analysis: Univariate and bivariate and correlation analysis.
- Dimensionality reduction : Factor Analysis (PCA, NMDS, etc.).
- Spatial data analysis: Spatial interpolation (Kriging, IDW, Regression Kriging, Clustering, etc.).

### Sales Advisor

Premium Contact Center International | Senegal

Jun. 2016 - Jun. 2017

- Improve brand awareness
- Support for the use of the brand's products and services

## Key projects

- Creation of a website for event equipment leasing.
- Creation of RShiny application for quantitative data analysis.
- Development of a R package for spatial data analysis and visualization.
- Create VBA macros that customize cover letters generation.

## Hobbies

I like to draw, write short narrative texts/poems, read, go for a run, travel to meet people and discover new places.