

### **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 Option: Statistics

UNIVERSITY OF LILLE (FRANCE)

2017 | Master's Degree

Econometrics and Quantitative Finance
UNIVERSITY CHEIKH ANTA DIOP (SENEGAL)

2011 | Baccalaureate

Scientific option

COURS SACRE-COEUR (SENEGAL)

Languages

FRENCH ENGLISH (**B1** – CECR) 0 0 0 0 0

SPANISH

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# 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.
- Exploratory analysis: Univariate and bivariate and 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.
- Creation of VBA macros to customize cover letters templates generation.

### **Hobbies**

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



## \* Machine Learning

- <u>Data wrangling</u>
- Cleaning, Missing data and outliers handling, feature engineering.
  - R: tidyverse, dyplr, stringr, etc. | Python: Numpy, Pandas, SciPy.
- Explanatory analysis
- Univariate / Bivariate / Mutivariate 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.



- 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