



## Summary

I am a Data Engineer, at the end of a Ph. D. thesis in Applied mathematics. Passionate by Data Analysis and web development, I enjoy programming and automating routine tasks on web interfaces in my spare time. Last 03 years, I have worked on spatial analysis of seafloor data and built predictive models for geomorphological maps.

## 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	●	●	●	○	○	○

## Work Experience

### Ph. D. student in Applied Mathematics

*Institut Montpelliérain Alexander Grothendieck (IMAG)*

*Montpellier University | France*

Oct. 2020 to present

- Develop Machine Learning based methodology to automate seafloor geomorphology mapping
- Share algorithms with the scientific community implementing the developed methods through seminars, international conferences, colloquia, etc.
- Develop skills around reproducible research, High Performance Computing (HPC), R packages development, etc.
- Teach Statistics to university students

### Spatial Data Analyst (intern)

*Lille University | France*

Feb. - Aug. 2020

- Explanatory analysis: Data cleaning / wrangling, visualization.
- Data dimension reduction : Factor Analysis (PCA, NMDS, etc.)
- Spatial data analysis: Interpolation, 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 a RShiny web application for quantitative data analysis.
- Development of a R package spatial data analysis and visualization.
- Create VBA macros that customize cover letters according to information of a job offer.

## Hobbies

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



## SKILLS

### ❖ Machine Learning

- Data cleaning/wrangling
  - dplyr, tidyr | Numpy, Pandas, etc.
- Missing data imputations
- Regression, Classification, Clustering
  - caret | Scikit Learn, Scipy
- Data Visualization
  - ggplot2, plotly, shiny | Matplotlib

### ❖ Big data

- High Performance Computing (HPC)
- Parallel computing
  - Parallel, Multidyplr

### ❖ Programming Languages

- R, Python, SAS
- SQL
- VBA
- LaTeX

### ❖ Softwares / IDE

- Rstudio RShiny, Rmarkdown, Rsweave, Flexdashboard
- Azure ML Studio, SAS Studio
- Tableau
- Gretl, Eviews, Stata, GeoDa
- Excel, PowerPoint
- Anaconda, Jupyter Notebook, Git

### ❖ Databases Systems

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

### ❖ Web development

- HTML, CSS, PHP, Java Script, Bootstrap



## 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