

MAMADOU GUEYE

Statistician Economist | Data Scientist

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☎ +221761416306 📍 Dakar, Senegal 📅 Age: 28, Single
🌐 github.com/mamadou-gueye2 🌐 My Portfolio Url



WORK EXPERIENCES

DUTEC: Dakar Urban Transport Executive Council

Statistical Services Provider

📅 september 2020 – November 2020 📍 DUTEC

- Tasks: Data processing of travel surveys data
- Technology: R, Stata, MS Excel

Data Analyst and Research Intern

📅 August 2019 – November 2019 📍 DUTEC

- Theme: Analysis of the determinants of modal choices for commuting workers in the Dakar region.
- Skills & Tasks
 - Preparation of survey data
 - data cleaning
 - univariate control
 - consistency control
 - external control
 - multiple imputation (the appropriate imputation method to use, the tests to be done in this direction)
 - Performed Multinomial Regression model to determine probabilities and predict modal choices of transportation users dealing with home-to-work cummting.
- Technology: R, MS Excel

PROJECTS

- Artificial Emotional Intelligence: Training and deployment of a system that automatically monitors people's emotions and expressions using ResNet architecture
 - We pass our image through two different models, one is a key-point detection model and the other is an expression detection-based model.
 - Finally, we combine the output of these two models to get the final result.

Google Colab & Python

📅 2020

- Healthcare AI: Training (with MRI scans) and deployment of a system that detect and localize brain tumors. We performed Transfer learning using ResNet50 trained with ImageNet data.
 - We pass our image through two different models, one is a tumor detection-based model and the other is a modern image segmentation-based model using ResUNet architecture.
 - Finally, we combine the output of these two models to get the final result.
- Leveraged Explainable AI using Grad-CAM Visualization

TRAINING AND GRADE

Statistician Economist Engeneer-SEI

📅 2017 – 2020 📍 ENSAE Dakar

Master of Applied-Mathematics

📅 2015 – 2017 📍 UCAD

Bachelor of Mathematics

📅 2012-2015 📍 UCAD

High School Degree of Mathematics and Physics

📅 2012 📍 Pikine High School

WORKING TOOLS

Stata & R

SPSS & LaTeX

Excel & VBA & GAMS

python & Tableau desktop & Hadoop

Microsoft Visual Studio & Microsoft SQL Server

SQL Power Architect & Squirrel SQL

LANGUAGES

Bilingual

French (speaking & writing)

English (speaking & writing)



CERTIFICATIONS

OpenClassroom & Udemy.com

- Modern AI certification: Udemy.com
- Data science from A to Z: Udemy.com
- Modeling and implementing a relational database with UML:Openclassroom
- Object-Oriented Programming in Python: Open Classroom

HOBBIES

Foot-ball

Music

Art of communication

Google Colab & Python

📅 2020

- Business AI (Marketing & Banking): Creation of a targeted ad marketing campaign for a retail analytics company and a default payment classifier for a bank using XGBOOST and data from: Lichman, M. (2013). UCI Machine Learning Repository. Irvine, CA: University of California, School of Information and Computer Science. (available here)
- We used AWS SageMaker with its protobuf training input format and CPUs

Google Colab & Python & AWS cloud

📅 2020

- CREATIVE AI: Leveraged Deep Dream Algorithm to create dream-like effect

Google Colab & Python

📅 2020

PROFESSIONAL SKILLS

Econometric Models

📅 ENSAE

- Panel Data Model, Survival Model, Discrete Choice Model, Time Series, VAR, Panel VAR etc.

ML & DL Engineering

📅 ENSAE

- Detection-based Model
- Image Segmentation
- Classifiers
- Explainable AI
- NLP

Database

📅 ENSAE

- ETL with microsoft SSIS
- Data Query

Analysis and Impact Assessment of public policies

📅 ENSAE

- Econometric impact assessment models - RCT, RDD, ...
- Microsimulation and Computable General Equilibrium Models (CGEM)

Multidimensional Analysis

📅 ENSAE

- PCA, MCA, CFA, DFA etc.

Poll survey

📅 ENSAE

- Design, management (CSpro, ODK)

REFEREES

Mr Amath N'diaye: Head of the DUTEC Travel Observatory Division

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Mr Abdou DIOUF: Director-General of ENSAE

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