

# Benjamin-Ousmane M'Bengue

## Software Engineer (Data science & IA)

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### Skills

- 💻 **Programming**  
*Python, Typescript, Javascript, Html, Css, SQL*
- 📱 **App development**  
*Streamlit, React, Angular, Firebase*
- 🧠 **Data science & IA**  
*Pandas, Scikit-learn, TensorFlow, Hugging Face*
- 📊 **Data visualization**  
*D3, Altair, Matplotlib*

### Education

- January 2018 - May 2023*
- 🎓 **Polytechnique Montreal (Canada, QC)**  
Bachelor's Degree in Software Engineering (*data science and artificial intelligence*)
- September 2014 - July 2017*
- 🎓 **Lycée Joseph-Marie Carriat (France, 01)**  
Diploma of the General Scientific Baccalaureate

### Sports Experience

- 🥋 **Grappling**  
*Tristar Gym Montreal*
- ⚽ **Football**  
*5 years at Football Bourg-en-Bresse Péronnas 01*
- 👤 **Football referee**  
*CEPSUM leagues*
- 📖 **Personal documentation**  
*Podcasts (Peter Attia, Andrew Huberman, Mark Bell, Micheal Gundill), methods (ATG for coaches, Weck method), books, scientific papers, etc.*

### Summary

- ✔ Skills in web application development
- ✔ Good understanding of data science principles and machine learning models (NLP, data mining, time series forecasting)
- ✔ Knowledge of the software development process and group management (agile methods, git)
- ✔ Strong interest in research and data analysis, particularly in the field of sport and athletic performance

### Work History

- September 2021 - December 2021*
- 🏢 **Junior Data Scientist | Goldspot Discoveries**
  - ▶ Development of visualization tools for drilling data sets (mineral resource estimation)
  - ▶ Development of a web application allowing the analysis of satellite images using spectral band ratios (remote sensing)

### Projects

- 🏆 **Final project in artificial intelligence (Fall 2022)**  
*Prediction of the lifetime of a sensor*
  - ▶ **Preprocessing** : denoise signal, remove singular values, detect clusters
  - ▶ **Modeling** : test and compare different machine learning models for time series forecasting (RNN, LSTM, N-BEATS)
  - ▶ **Visualizing** : build a dashboard with Streamlit
- 🏆 **Tristar gym app (Fall 2022)**  
*Web application for Tristar Gym members build with NextJs, ReactJS and Firebase*  
Supervisor : **hamza.lakrati@outlook.com**
- 🏆 **Who deserves 2022 Ballon d'Or ? (Summer 2022)**  
*Comparing soccer player performances with D3 charts*
- 📦 **Demo** : <https://benjamin-ousmane.github.io/2022-Ballon-Or-Project>