



# Lamiaa Loukhmiri

STATISTICIAN | DATA SCIENTIST

## PROFIL

A graduate in applied statistics, I excel in data science, focusing on data cleaning, statistical modeling and visualization. Motivated by intellectual challenges, I aim to strategically leverage these skills to propel my career in data science and artificial intelligence.

## EDUCATION

- |   |                  |
|---|------------------|
| <b>PhD candidate in Machine Learning for Metaheuristics</b>         | <b>2022/2023</b> |
| - Faculty of Sciences Ain Chok Casablanca                           |                  |
| <b>Master's degree in Numerical Methods and Applied Statistics.</b> | <b>2020/2022</b> |
| - Faculty of Sciences Ain Chok Casablanca                           |                  |
| <b>Bachelor's degree in Mathematics and Applications.</b>           | <b>2016/2020</b> |
| - Faculty of Sciences Ain Chok Casablanca                           |                  |
| <b>High School Diploma in Mathematics.</b>                          | <b>2016</b>      |
| - ALKHAOUARIZMI High School   |                  |

## EXPERIENCES

**DATA ANALYST (INTERNSHIP )** **09/10/2023 to 09/01/2024**

**Sofrecom (Orange affiliate)**

- Problem: Manual data visualization and KPI tracking due to data disorganization and lack of data links.
- Methods: Data analysis and organization in SQL, automated data visualization and dashboard creation in Power BI using DAX language and Python algorithms.
- Measurable results: 100% automation of KPI calculations.

**MASTER'S THESIS PROJECT**

**02/2022 to 06/2022**

**Faculty of Sciences Ain Chok Casablanca**

- Problem: Enhancing multiple sequence alignment efficiency to identify conserved motifs.
- Methods: Created an alignment algorithm using advanced metaheuristics in Python to cut computation time.
- Measurable results: Significantly reduced computation time, improved alignment accuracy, and enhanced the identification of conserved motifs with greater precision.

**BACHELOR'S DEGREE THESIS PROJECT**

**02/2020 to 07/2020**

**Faculty of Sciences Ain Chok Casablanca**

- Problem: Optimization of portfolio management to maximize returns and minimize risks.
- Methods: Automated import and processing of financial data. In-depth analysis to select the most promising stocks. Use of time-series analysis techniques to identify trends and inflection points. Advanced modeling of portfolio performance and risk using the Markowitz principle and the Normal Boundary Intersection (NBI) method for multi-objective optimization.
- Measurable results: Portfolio returns increased by 8%. Investment risk reduced by 5% through more effective diversification.

## PROJETS

Casablanca Stock Exchange Analysis and Forecasts

Credit Card Fraud Detection using Machine Learning

Auto Hall Stock Price Prediction (LSTM)

Binary Classification with a Bank Churn Dataset

Exploring spam messages using NATURAL LANGUAGE PROCESSING

Analysis of GDP (Gross Domestic Product) in Africa

## CONTACT

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## SKILLS

- **Programming:** Proficient in Python, R, SQL, Power Bi.
- **Statistical Analysis:** Linear & logistic regression, ANOVA, hypothesis testing, time series analysis, econometrics
- **Machine Learning & AI:** Supervised learning (regression, classification), unsupervised learning (clustering, PCA), NLP, ANN & deep learning, forecasting, data mining, feature engineering
- **Data Wrangling & Analysis:** Data collection, cleaning, preprocessing.
- **Data Visualization:** Creating insightful visualizations using tools like Matplotlib, Tableau.
- **Big Data Technologies:** Knowledge of platforms like Hadoop, Spark, Hive.
- **Frameworks:** TensorFlow, Scikit-learn, XGBoost, Matplotlib, Keras, PyTorch .
- **Communication & Collaboration:** Effective written and verbal communication, teamwork, and cross-functional collaboration

## LANGUES

Arabic: Native language.  
French: Fluent.  
English: Intermediate