Mounir Boulwafa

Data Scientist, Machine Learning Engineer, Data Consultant

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Professional Experience

Deloitte *(Extended Services)*   *Casablanca, Morocco*

Data Science Consultant & ML Engineer   *April 2022 - Present*

Consulting missions for clients from diverse industries and actively participating and contributing to the internal assets and projects:

- Designed and built an entreprise-scale AI Buddy using Rasa to automate the onboarding process, answer questions of ~1k end-users and provide general support for new hired.

- Leading an internal project to develop NLP/ML models for Risk Advisory team to enhance ESG risk identification from sustainability reports and improve gathering insights from massive amounts of unstructured text data.

- Working on operationalizing AI use cases and deploying ML models to Production adopting the MLOps approach.

AIOX Labs   *Rabat, Morocco*

Data Scientist   *August 2020 - April 2022*

Worked on an Experimental Project with the Central Bank of Morocco about "*Leveraging Big Data Analytics and Artificial Intelligence (AI) in Central Banking to estimate and predict macroeconomic aggregates*":

- Worked closely with the data department to build and deploy a large-scale data collection platform of prices, news articles, tweets, weather and other alternative data.

- Created a Digital Price Index to measure daily CPI Inflation and to explain the fluctuations of the aggregated official Inflation index.

- Worked with macro-prudential department to create an Online Real Estate Index that provides an accurate view of the housing market.

- Developed NLP/ML models for communication depart to enhance gathering insights (entities identification, measuring uncertainty, impact scoring, household sentiments) about monetary policy and economic situation from local news.

- Implemented multivariate deep models and used alt data for improving the forecasting of macroeconomic aggregates (Inflation, Credit, Unemployment, Real Estate, Climatic Shocks).

Consulting missions for clients from diverse industries :

- Helped implementing an Azure Data Lake and developing data ingestion pipelines for multiple commercial banks.

- Worked for a phosphate mining company on deduplication of ~3 million inventory spreadsheet records (based on designations, descriptions and other metadata) using text processing, python and RegEx to improve data quality, reduce inefficiency and unnecessary cost.

Technical Skills

Machine Learning, Deep Learning	NLP, SpaCy, BERT, HuggingFace, Rasa
Python, Java, Spark (PySpark)	AWS, Azure, Data Lake, Databricks
Pandas, Numpy, Matplotlib, Seaborn	MLOps, MLFlow, Apache Airflow
Scikit-learn, Keras, TensorFlow	PowerBI, Tableau

Education

- **Engineering Degree in Computer Sciences, Big Data & Cloud Computing**   *2017 - 2020*
  ENSET Mohammedia, Hassan 2 University of Casablanca, Morocco

- **Higher Technician Degree in Networking & System Administration**   *2015 - 2017*
  Technical High School Alidrissi, Agadir, Morocco

Languages

English: fluent.   **French**: fluent.   **Arabic**: native

Certifications

- Machine Learning Foundations: A Case Study Approach
- Complete Python Bootcamp From Zero to Hero in Python
- Sentiment Analysis with Deep Learning using BERT
- Data Analysis Using Pyspark - Courseara
- Others...

Interests

- Blogging
- Music Production
- Design
- Football

Community Engagement & Volunteering

- Applied Machine Learning Days (AMLD) Africa | Ambassador   *2022 - Present*
- Moroccan Association for Computing Sciences (MACS) | Committee Lead   *2018 - Present*
- Moroccan Collegiate Programming Contest (MCPC) | Committee Lead   *2018 - Present*