# HAMZA EL MAATAOUI

Data Science and AI Student Looking for internship PFE

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### SKILLS

Programming Languages: Python (TensorFlow, Keras, scikit-learn), Java, SQL
Data Science: Machine Learning, Deep Learning, Time Series Analysis, NLP, Hugging Face
Tools and Software: RStudio, Docker, SPSS, Jira, Git
Databases: MySQL, MongoDB, Postgresql
Data Visualization / Manipulation: Matplotlib, Seaborn, Plotly, Power BI, SciPy, Pandas

### EXPERIENCE

## Haut Commissariat au Plan (HCP)

#### Data Science Intern

- Developed a web-based application for automating HR database queries using Natural Language Processing (NLP).
- Created an intuitive user interface using Streamlit , allowing HR personnel to interact with databases through natural language.
- Optimized database queries for faster retrieval and processing of HR data.

#### **OCP-Phosboucraa**

Power BI Intern

- Collected and cleaned large datasets related to phosphate production and sales.
- Designed and implemented interactive dashboards using Power BI to visualize key performance indicators.

# PROJECTS

#### **Tuberculosis Detection Using Deep Learning**

- Developed a deep learning model (LeNet architecture) for detecting tuberculosis from chest X-ray images using the NIH Chest X-ray dataset.
- Implemented a user-friendly web application using Gradio for real-time tuberculosis detection.

#### Build an AI-Agent to Optimize SEO for Youtube channels

- Developed a pipeline to extract YouTube video comments using the YouTube API .
- Implemented an ETL process to store comment data in Amazon S3 and data orchestration using Apache Airflow .
- Integrated OpenAI's GPT model for sentiment analysis and SEO suggestions.
- Created a streamlit web application for user interaction and result visualization.

#### Power BI AI Assistant

- Developed an innovative AI-powered Power BI assistant using Python, OpenAI API, and Streamlit, integrating advanced data analysis and visualization recommendations
- Implemented automated DAX query generation using GPT-4
- Created comprehensive data quality analysis system with automated warehouse structure suggestions

• Built an interactive web interface allowing users to upload datasets, analyze data quality, generate DAX queries

#### EDUCATION

# School of Information Science

Engineer in Data Science and Knowledge Engineering CPGE : Lissan Edin Ibn Khatib Classes Préparatoires (Mathematics and Physics)

# CERTIFICATIONS

# DeepLearning.AI: Supervised Machine Learning

IBM: Data Analysis with Python

# IBM: IBM Machine Learning Specialist - Professional

# LANGUAGES

**English**: Professional working proficiency (speaking, reading, and writing) **French**: Professional working proficiency (speaking, reading, and writing) **Arabic**: Native proficiency (speaking, reading, and writing) Completed: May 2023 Completed: August 2023 Completed: March 2024

Sept 2022 - Present

Sept 2020 – Jun 2022

Rabat. Morocco

Laayoune, Morocco

Jul 2024 – Sep 2024

Laayoune, Morocco

#### Jul 2023 – Aug 2023

 $Laayoune,\ Morocco$