Othman Trigui

Data & AI engineer

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Profile

Data & AI Engineer combining technical expertise with a global vision of intelligent systems. Specialized in designing data pipelines and deploying machine learning models. Passionate about innovation and solving complex problems, I turn advances in Data and AI into concrete, high-performance, and practical solutions for everyday use.

Education

Engineer's degree - Data Engineering and Artificial Intelligence
National School of Applied Sciences

2023 – 2025
Safi

Bachelor's degree - Infrastructure, Processing and Analysis of Big Data
Superior School of Technology

2022 – 2023
Fquih Ben Saleh

Two-year post-secondary [DUT] - Computer Engineering
Superior School of Technology

2020 – 2022
Fquih Ben Saleh

Professional experience

Systems & Data Engineer
Netopia solutions

09/2025 – Present
Rabat, Morocco

- Installed and configured a SonarQube server to centralize code quality analysis.
- **DPP Project (Dossier Patient Partagé):**
  - Developed a Spark Structured Streaming pipeline from Kafka for near real-time ingestion and transformation of JSON data from FSE and hospital information systems, storing it in a structured format in HBase using Scala.
  - Designed a Spark Structured Streaming pipeline that reads medical report file paths from Kafka, extracts their content from MinIO, and stores them in Ozone for distributed file management.
  - Performed mapping and indexing of HBase tables in Phoenix to enable optimized SQL access and queries on the data.
  - Implemented an automated NiFi flow to back up raw data from Kafka into a partitioned HDFS, ensuring traceability and storage resilience.
- **FSE Project (Feuille de soins électronique):** Linked the project's DevOps repositories to the SonarQube server and exposed the analysis results on a Grafana dashboard using a Python scraper and the SonarQube API.

Data & DevOps Engineer Intern
Netopia solutions

02/2025 – 08/2025
Rabat, Morocco

- Developed a Cyber Threat Intelligence platform implementing 360° monitoring with modules for brand surveillance, VIP identity protection, and image monitoring of companies and public figures, leveraging real-time data from social media, news, and the dark web.
- Built, deployed, and automated the solution through a complete DevOps pipeline (Azure Pipelines, Repos) with Redis queuing and browser automation.
- Collaborated within a Scrum team, contributing to architecture design, backend development, and CI/CD deployment in 2-week sprints.
- **FSE Project (Feuille de soins électronique)**: Migrated an Oracle database from a Windows machine to a Linux VM, including environment setup, service configuration, and data transfer.

AI Engineer Intern
Netopia solutions

07/2024 – 09/2024
Rabat, Morocco

- Implemented and evaluated transcription and diarization models (Whisper, AssemblyAI, Pyannote) to accurately transcribe and distinguish between speakers in multilingual audio recordings.
- Utilized models like BART and GPT-3.5 for summarizing interview transcripts, optimizing the interview analysis process.
- Utilized GPT-3.5 to generate tailored interview questions and technical tests based on job descriptions and candidate profiles.

Data Scientist Intern
ONEE - BE

04/2023 – 06/2023
Casablanca, Morocco

- Built machine learning models to classify, detect and extract desired information from national ID cards.
- Used Azure services (Blob Storage, ML Studio) to extract the data and to train the models.

- Developed a web application using Flask to test the models.

Web Development Intern   04/2022 – 06/2022
Société Briqueterie Bati Chaouia (SBBC)   Berrechid, Morocco
- Redesigned and rebuilt the company's official website from scratch using PHP, HTML, CSS, JavaScript, and MySQL.
- Built admin panel allowing administrators to easily add, edit, and remove products directly on the website without technical knowledge.
- Designed the website to be fully responsive, secure, and optimized for a smooth user experience across devices.

Projects

Attendance and Mask Detection App with Location Tracking
Provided a comprehensive solution for managing student attendance, real-time mask detection, and location tracking.
- Developed a Streamlit app for student attendance and real-time mask detection using computer vision techniques.
- Implemented data visualization and automated email notifications for detailed attendance and mask usage reports.
- Integrated secure login functionality and location tracking to enhance monitoring and reporting accuracy.
Technologies: Python, Streamlit, OpenCV, TensorFlow, Firebase.

Obesity level prediction ⬈
Predict obesity level based on eating habits and physical condition using machine learning
- Mastered data preparation and model-ready datasets by tackling missing values and encoding categorical features.
- Built and optimized predictive models using diverse machine learning approaches and meticulous hyperparameter tuning.
- Developed a user-friendly Streamlit web app for intuitive input, robust predictions, and clear result visualization.
Technologies: Python, Matplotlib, Seaborn, GridSearchCV, XGBoost, Ensemble Learning, Streamlit.

Online Sales Data Analysis ⬈
Understand customer behavior and segment them into different groups using the LRFM model
- Extracted valuable insights from online sales data through meticulous data cleaning, aggregation, and visualization.
- Executed customer segmentation using the LRFM model, enabling targeted marketing strategies and personalized customer experiences.
- Demonstrated proficiency in Python data analysis tools to effectively process and visualize large datasets.
Technologies: Python, Pandas, NumPy, Matplotlib.

Zero Chômage
A Comprehensive Job Search Platform
- Designed and developed a full-stack job search platform, streamlining connections between recruiters and candidates.
- Implemented user functionalities for both recruiter and candidate profiles, enabling efficient job posting, application submission, and CV sharing.
- Enhanced the platform by integrating an AI-powered job recommendation system and CV parsing for candidates, improving job matching accuracy and application efficiency.
Technologies: PHP, Python, HTML5, CSS3, JavaScript, jQuery, MySQL, Flask, Scikit-learn, Pandas, NLTK.

Skills

PROGRAMMING LANGUAGES
Python, R, PL/SQL, JAVA, Scala

MACHINE LEARNING & DATA SCIENCE
Scikit-Learn, TensorFlow, Keras, PyTorch, Numpy, Pandas, Matplotlib, Seaborn, Plotly, OpenCV, Prompt Engineering

CLOUD
Azure, Cloudera, AWS, GCP

DATABASES & BIG DATA
Cassandra, MongoDB, Redis, Oracle, SQL Server, MySQL, Spark, Hadoop, Firebase, Kafka, PostgreSQL, HBase, Ozone, Phoenix, NiFi

WEB DEVELOPMENT & AUTOMATION
Flask, Streamlit, HTML, CSS, JavaScript, Selenium, BeautifulSoup

DEVOPS & CI/CD
Docker, Git, GitHub, Cloudflare, Nginx, Azure Pipelines

Certificates

- Microsoft Certified: Azure Data Scientist Associate ⬈
- Advanced Computer Vision - DeepLearning.AI ⬈
- Machine Learning Specialization - DeepLearning.AI ⬈
- Python for Data Science, AI & Development - IBM ⬈

Languages

English
Full professional proficiency

French
B2 (TCF certified)

Arabic
Native