



# EL HADRATI OTHMAN

DATA AND SOFTWARE ENGINEERING STUDENT

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## SUMMARY

I am a second-year Data Engineering student at the National School of Applied Sciences in Al Hoceima (ENSAH). I'm passionate about data engineering and excited to apply my skills and knowledge to create innovative solutions.

## PROJECTS

### REAL-TIME ANOMALY DETECTION SYSTEM

**AWS SERVICES | KAFKA | PYTHON**

- A real-time anomaly detection system for credit card transactions using **AWS services (Ec2, DynamoDB)**, **KAFKA** for a real-time data streaming .
- Implementing an **Isolation Forest machine learning** model for effective anomaly detection and creating a **React** frontend for real-time transaction visualization.

### SPOTIFY PIPELINE | AWS ECOSYSTEM

**AWS SERVICES | PYTHON**

- Building an automated data pipeline using **AWS services (Lambda, S3, RDS)** to extract, transform, and load **Spotify API** data on a weekly schedule, ensuring up-to-date data.
- Designed and implemented data visualization dashboards in **Amazon QuickSight**, leveraging **CloudWatch** to monitor and automate pipeline operations for continuous data refresh and insights.

### MEDICALE OFFICE MANAGEMENT | FULL-STACK WEB APPLICATION

**FASTAPI | REACT | MYSQL | DOCKER**

- Developed an admin dashboard using **React** with **Tailwind CSS** and **FastAPI** to manage patient records, appointments, and revenue tracking, enhancing operational efficiency.
- Implemented **JWT authentication** for secure access control and deployed the system using **Docker** containers, facilitating streamlined and scalable deployment across multiple environments.

### YOUTUBE DOWNLOADER | WEB APPLICATION

**FLASK | HTML | CSS | JAVASCRIPT**

- Creating a web application enabling users to download YouTube videos, Shorts, and Playlists in various formats by simply providing the video URL, enhancing user convenience.
- Designing a responsive and user-friendly interface with **HTML**, **CSS**, and **JavaScript**, and deployed the application online for easy access without the need for software installation.

### GITHUB ANALYZER | GITHUB DASHBOARD

**PYTHON | STREAMLIT | PANDAS**

- Making a GitHub dashboard utilizing the **GitHub API** to extract and display key data from trending repositories, highlighting important metrics and statistics.
- Implemented **ETL** processes to clean and transform data, using **Pandas** and **Streamlit** for interactive visualizations, and provided an intuitive user interface for seamless exploration of GitHub trends.

### MACHINE LEARNING & DEEP LEARNING ALGORITHMS

**TENSORFLOW | SCIKIT-LEARN | GYM**

- Created a repository that includes machine learning and deep learning algorithms implemented using **TensorFlow**, **Scikit-learn**, **Gym**, and other libraries, also developing some algorithms from scratch to explore various models .
- Provided well-documented code and examples for each algorithm, facilitating easy understanding and replication for users exploring machine learning concepts.

## EDUCATION

Second-year Student in Data Engineering

2023 - 2026

The National School of Applied Sciences in Al Hoceima (ENSAH)

- Acquisition of the fundamental theoretical and technical skills required for an engineer.

## Preparatory Cycle

2021 - 2023

The National School of Applied Sciences in Al Hoceima (ENSAH)

- gaining foundational knowledge and skills in engineering, mathematics, and sciences to effectively transition into specialized studies in data engineering.

## First year of Bachelor's degree

2021 - 2020

Faculty of Sciences Ibn Tofail (FSK UIT)

## ADDITIONAL INFORMATION

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- **Technical Skills:**
  - **Programming Languages & Frameworks:**
    - Python (FastAPI , Flask), Java, JavaScript (React), R, C
  - **Databases:**
    - SQL (PostgreSQL, MySQL, OracleDB), PL/SQL
  - **Operating Systems & Scripting:**
    - Linux, Windows, Bash scripting
  - **Artificial Intelligence:**
    - Machine Learning, Deep Learning
  - **DevOps:**
    - Git, GitHub, Docker, AWS
  - **Design & Modeling:**
    - Agile/Scrum, UML
- **Languages:**
  - **English:** Proficient
  - **French:** Proficient
- **Certifications & Badges:**
  - Over 10 certifications in Data and Computer Science from Coursera, CodSoft and others.
- **Skills:**
  - Problem Solving
  - Teamwork
  - Adaptability