

# Amgrout Zakaria

Tangier, Morocco

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<https://github.com/blueskullMRX/>

## Summary

Artificial Intelligence Engineer with expertise in developing healthcare platforms using machine learning and NLP. Delivered SEHATOKA, featuring intelligent diagnosis, automated patient management, and clinical decision support with LLMs. Skilled in deploying AI solutions for risk prediction and workflow automation. Ready to advance healthcare technology with practical AI innovation.

## Experiences

### DIGIUP

Jul 2025 - Aug 2025

Artificial Intelligence Engineer

Rabat, Morocco

- Developed SEHATOKA, an AI-driven healthcare platform that improved patient diagnosis accuracy by 30% and reduced workflow processing time by 40%.
- Designed and deployed machine learning models for symptom-based patient routing, disease risk prediction, and an NLP-powered doctor chatbot, enhancing patient triage efficiency and improving risk assessment accuracy
- Integrated Large Language Models (LLMs) for clinical decision support and automated patient management, leading to faster decision-making and improved patient care management

### Smart Automation Technologies Pvt. Ltd.

Apr 2024 - Jun 2024

Web Developer

Tangier, Morocco

- Developed a solution for auditing and managing the inventory of hardware and logistics resources using the MEAN stack, improving resource tracking efficiency
- Achieved key milestones by designing and developing the resource management section of the platform, and performed testing and debugging to ensure reliability and performance, enhancing system stability

## Education

### Faculty of science and technology, Tangier

Sep 2024 - Present

Masters, Artificial Intelligence and Data Science

### Faculty of science and technology, Tangier

Sep 2023 - Jul 2024

Bachelor, Software Development Engineering

## Projects

### Real-Time Amazon Review Sentiment Analysis

May 2025

- Designed a real-time Big Data pipeline using Kafka, Spark Streaming, and MongoDB to classify Amazon reviews (positive/neutral/negative).
- Deployed ML models and dashboards for live and batch sentiment visualization via Docker.

### Facial expression detection

Mar 2025 - Apr 2025

- Developed a CNN model using TensorFlow/Keras for emotion recognition from facial images with preprocessing and classification metrics evaluation.
- Deployed a Streamlit app for real-time emotion detection via webcam and analysis of uploaded images or videos.

### FutureVision

Dec 2024

- Designed a Streamlit web app for uploading and processing CSV, Excel, and JSON data.
- Integrated ML models for interactive analysis and prediction in a clean UI.

### Performance evaluation of fuzzy clustered CBR

Dec 2024

- Evaluated a fuzzy clustering-based Case-Based Reasoning system for classification tasks.
- Used Python to assess accuracy and efficiency improvements over classic CBR.

## Technical skills

- **Programming languages:** Python, C#, C++, Java, JavaScript
- **Machine learning / Deep learning:** Pytorch, Keras, Hugging Face, Transformers, Numpy, Pandas, Scipy, Scikit-learn, Matplotlib
- **Databases:** MySQL, PostgreSQL, SQLServer, SQLite, MongoDB
- **BI / Data analysis:** Power BI, Talend
- **Web:** .NET Core, Django, FastAPI, Flask, React
- **Other tools:** Git, Docker, Linux, OpenCV, NLTK

## Communication

- Arabic (Native proficiency)
- English (Professional working proficiency)
- French (Professional working proficiency)