AYMEN HADJ MEBAREK

AI ENGINEER / SOFTWARE ENGINEER

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Objective

To pursue a challenging position as an AI Engineer where I can apply my skills in machine learning, data analysis, and software development to design intelligent systems, solve real-world problems, and contribute to impactful AI-driven solutions.

Education

- **High School Diploma with Honors (BAC)** **2020**
  Major : Mathematics

- **Bachelor's degree,** University of science and technology Houari Boumedienne **2020-2023**
  Major : Computer Science

- **Master's degree,** University of science and technology Houari Boumedienne **2023-2025**
  Major : Intelligent Computer Systems

Professional Experience

Application Developer | ATOS **08/2025 – Present**
- Building and maintaining full-stack applications with Spring-based Java backends and Angular frontends.

Machine Learning & Python Programming Instructor | Code213 **03/2025 – 09/2025**
- Tutored students and beginners in Python fundamentals, machine learning, and data analysis through hands-on projects.
- Provided mentorship and code reviews to improve understanding of best practices and problem-solving skills.

Data Science Internship | Djezzy **07/2024 – 08/2024**
- Data analysis and dataset preprocessing.
- Training clustering models to predict revenues.
- Compared results with other models to upgrade the K-means model.

Medical Imaging & 3D Modeling Internship | CERIST **06/2024 – 08/2024**
- Segmentation of CT (X-ray) scans.
- 3D modeling of the result of segmentation.
- Implementing the 3D model in a web app using API.

Skills & abilities

- Effective Communication
- Time Management
- Problem solving
- Brainstorming

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Personal Experience

Corona Fake News detection

- Built a Neural Network LSTM model for NLP to detect fake news
- Developed a Flask backend with HTML/CSS/JS front end for user interaction
- Implementation of API for seamless integration of the model with web services

SCB (Surfaces Corporelles de Brûlures)

- Developed an app for burn hospitals, currently used in "Hôpital des grands brûlés à Zéralda" and over 20 hospitals.
- Built with Electron.js for easy deployment and integration across hospital systems.
- Designed to calculate body surface areas and the degree of burns using medical resources, enhancing clinical workflow and burn care management.

AI plays Flappy Bird

- Developed an AI agent using the NEAT algorithm to autonomously play Flappy Bird.
- Trained the model to adapt and improve over time based on gameplay.
- Integrated Python PyGame for real-time simulation of AI performance

Hand Written Word Recognition

- Built a CNN model to detect the character of the English alphabet
- Used OpenCV for detection and contouring of each character in a word
- Implementing the CNN model to each character of the word, to recognize the whole word

Collaborative Text Editor

- Created a real-time collaborative text editor using Quill.js for rich text editing and socket.io for live updates.
- Developed a user-friendly interface with page management to facilitate seamless document editing and collaboration.
- Integrated Flask as the backend to handle data storage and real-time interactions.

E-commerce Website

- Built a full-stack e-commerce platform using Django, with user authentication and product listings.
- Implemented backend logic with Django to manage products, handle orders, and provide a smooth customer experience.

For more projects you can view my github : aymen-hadj-mebarek

Certificates

- Machine Learning Specialization
- Data Analysis with Python
- Algorithms and Data Structures

- Scientific Computing with Python
- Problem Solving
- English IELTS : level C1