

BOUZIR MOAHAMED ALI

Data-Oriented Software Engineer

Career Objective:

Software engineer specialized in data science and backend development, with a passion for intelligent analysis and strategic data utilization. My goal is to join a dynamic team where I can leverage my technical and analytical skills to design innovative solutions, automate processes, and contribute to data-driven and insightful decision-making.

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Address: Rue 06, Immeuble 17,
Apartment 4, Monastir, 5000 – Tunisia

Date of Birth: February 18, 2001

Education:

2023 – Present

◆ 2nd Year Engineering Cycle in Computer Science, Specialization in Artificial Intelligence & Data Science
École Supérieure Privée d'Ingénierie de Monastir

2020 – 2023

◆ Bachelor's Degree in Software Engineering and Computer Science (LGLSI)
Faculty of Sciences of Monastir

2019 – 2020

◆ High School Diploma – Technical Section (Honors: Fair)
Fattouma Bourguiba High School, Monastir

Languages:

- **Arabic:** Native
- **French:** Fluent (B2 – TCF Campus France)
- **English:** Fluent

Technical Skills:

Languages: Java, C/C++, Python, SQL, JavaScript

Web: HTML, CSS, JS, Flask, Laravel, React, PHP, Firebase, REST, Bootstrap, Docker

Data/ML: Pandas, NumPy, Scikit-Learn, TensorFlow, Keras, PyTorch, NLTK, SpaCy, VAE, Diffusion, CRISP-DM, R (time series/statistics)

MLOps: FastAPI, Docker, MLflow, Elasticsearch, Kibana

Tools: Git, GitHub, Trello, Google Suite, Airtable

Software: VS Code, Arduino, Tableau, Excel, Postman, Oracle DB

General Competencies :

Autonomous, organized, rigorous, and team-oriented. Proven ability to analyze complex problems, propose effective solutions, and work collaboratively. Strong adaptability, technical communication, and time management skills.

Certifications:

- **Python for Data Science, AI & Development** - IBM (Dec 3, 2023)
- **Fundamentals of Visualization with Tableau** - University of California (Dec 23, 2023)
- **What is Data Science?** - IBM (Dec 27, 2023)

Interests:

Music (piano), digital editing, tech exploration via web browsing. Passionate about sports, especially football, with a competitive and team spirit.

Research Projects:

Comparison between VGG and CNN for Ligament Classification

- Comparative study of VGG and CNN architectures on a medical image dataset
- Tools: Google Colab, Python (TensorFlow/Keras), Matplotlib
- Goal: Identify the most suitable architecture for biomedical image classification
- Results: Accuracy analysis, overfitting, and model complexity
- Link: [Colab-Notebook](#)

Scientific Paper Reproduction – Speech Emotion Recognition

- Title: *A Generation of Enhanced Data by Variational Autoencoders and Diffusion Modeling* (Electronics Journal, March 2024)
- Objective: Enhance emotional clarity in voice recognition through synthetic data generation
- Datasets: EmoDB (German), RAVDESS (English)
- Tasks: Reproduce experiments, explore new architectures, evaluate with loss and accuracy metrics
- Methodology: CRISP-DM | Tools: PyTorch, VAE, diffusion models, Jupyter Notebook
- Link: [Colab-Notebook](#)

Development Projects:

PowerGym:

- **Description:** Web app for gym enthusiasts, offering AI-driven workout recommendations and BMI calculator.
- **Tech :** Laravel, Python, MySQL, Flask, Plotly
- **Features :** ML recommendations, API integration, analytics dashboards
- **Link :** [PowerGym](#)

AFFA – Automated Fantasy Football Assistant:

- **Description :** Predictive assistant for fantasy football using sports data analysis and MLOps techniques
- **Tech :** Python, Flask, FastAPI, NLTK, MongoDB, API-Football, Docker, MLflow, Elasticsearch, Kibana
- **Features :** Performance analysis, personalized recommendations, ML monitoring
- **Link :** <https://bouzirdaliaa.pythonanywhere.com/>

QuirkHire :

- **Description :** Final year group project: Smart platform for career centers using NLP/LLM to match candidates with jobs
- **Tech :** React, Django, Django REST Framework, Supabase, Redux Toolkit, OpenRouter API
- **Features :** Semantic CV analysis, explainable recommendations, hybrid NLP/LLM engine, analytics dashboard
- **Live Demo :** QuirkHire (<https://career-reco.vercel.app>)

Professional Experience:

ElyosDigital Company

- **Role:** Intern, Web Development
- **Place:** Monastir, Tunisie
- **Period:** June 18, 2024 - July 18, 2024
- **Main Responsibilities:**
 - Developed a digital management platform for the "FitLife" gym (members, subscriptions, activities, coaches)
 - Built a full web application for membership and activity booking management.
 - Managed coach schedules and session planning
 - Used Laravel for backend with a focus on responsive design and data security.

MyMatch – Admin Panel

- **Role:** Freelance Developer, Backend & Admin Panel
- **Place:** Monastir, Tunisie (Télétravail)
- **Period:** September 2024 – Present
- **Main Responsibilities:**
 - Developed admin dashboard for managing mobile app users
 - Backend services built with Laravel, integrated with Firebase and REST APIs
 - Created dynamic interfaces for real-time data visualization and system monitoring
 - Implemented secure authentication and user-friendly UI for admin tools