RAMY LAZGHAB

AI and Data Science enthusiast

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PROFILE

Motivated and detail-oriented Master's student in Big Data and Artificial Intelligence at Dauphine Paris | Tunis with a strong foundation in software engineering and data science. Experienced in developing machine learning models, working with big data tools, and building full-stack applications. Passionate about AI for social impact and committed to continuous learning. Looking for internship opportunities where I can apply my technical skills and contribute to innovative projects.

TECHNICAL SKILLS

Languages
Python, Java, C, R, JavaScript

Frameworks & Tools
Django REST, React, Flutter, Docker, VSCode, Git, Jupyter, CI/CD

Data Science
Pandas, NumPy, scikit-learn, Matplotlib, Seaborn, Word2Vec, NLP

Databases
PostgreSQL, SQL

LANGUAGES

English
IELTS

French

EDUCATION

Master's in Big Data & Artificial Intelligence, *Université Paris Dauphine | Tunis* 09/2024 – Present

Bachelor's Degree in Computer Engineering, *Faculty of Sciences of Tunis* 09/2021 – 06/2024

Computer science baccalaureate, *High School Mahmoud Messadi* 09/2018 – 06/2021

PROFESSIONAL EXPERIENCE

Software Developer Intern, *Infinity Management* 02/2024 – 06/2024
- Developed a blended-learning platform supporting online/offline training.
- Implemented dynamic course unlocking, test-based enrollment, and sentiment analysis using NLP.
- Integrated enterprise evaluation systems and learner progress tracking.
- Technologies: React, Django REST, Docker, Python, Git, CI/CD

Web Developer Intern, *Centre National d'Informatique (CNI)* 06/2023 – 06/2023
- Designed a web app for client registration and data management.
- Integrated database with export features for admin and analysis needs.
- Technologies: PHP, HTML, CSS

PROJECT EXPERIENCE

SportiQ

AI-Powered Sports Pose Analysis & Coaching Assistant

Personal Project | Python, OpenCV, MediaPipe, NumPy, NLP, Emotion Detection, Matplotlib

Developed an intelligent system that provides personalized feedback for athletes by analyzing posture and movement, with an initial focus on tennis.

Key Features:

- **Video Frame Extraction:** Automatically captures and processes frames from video input at configurable frame rates for detailed temporal analysis.
- **Pose Estimation:** Uses MediaPipe to detect 3D body landmarks and compute joint angles (elbow, hip, knee, shoulder) for biomechanical analysis.
- **NLP-Based Feedback Generation:** Converts joint angle metrics into personalized, context-aware advice using natural language processing techniques.
- **Emotion Detection:** Analyzes user-provided textual input to assess emotional tone (e.g., frustration, confidence), adapting the coaching advice accordingly.
- **Data Visualization:** Produces annotated frames and plots of joint angles to visualize motion quality and performance trends over time.
- **Scalable Architecture:** Designed with a modular codebase to support future expansion to real-time feedback, other sports disciplines, or advanced performance analytics.
- **Report generation**: CSV formats for structured feedback

This project demonstrates the integration of computer vision, natural language processing, and human-centric design to bridge the gap between AI and sports coaching, with the potential to assist coaches, athletes, and training institutions.

House Price Prediction – Kaggle Competition

- Built regression models to predict house prices using advanced feature engineering.
- Applied ensemble learning (XGBoost, CATBoost, Lightgbm), cross-validation, and hyperparameter tuning.
- Tools: Python, scikit-learn, Pandas, XGBoost

Diabetes Prediction System

- Developed a classification model to detect diabetes based on health metrics.
- Compared Logistic Regression, Decision Trees, and SVM with evaluation metrics.
- Tools: Python, scikit-learn, Matplotlib

MoodSync – AI Platform for Psychologists

Winner – Hack for Good Hackathon

- Developed a real-time therapeutic assistant platform to support psychologists during patient sessions.
- Integrated **speech emotion recognition** to detect patient mood and assist in diagnosis.
- Implemented a **smart note-taking feature** that generates session summaries every 30 seconds.
- Synced with IoT devices to **dynamically change LED room lighting** based on the patient's emotions, enhancing relaxation.
- Deployed the application using **Streamlit** for a fast, interactive, and intuitive frontend interface.
- **Tech Stack:** Python, Streamlit, Speech-to-Text, Sentiment Analysis (NLP), IoT (LED Control), REST API, **multisensory AI integration**.

Career Satisfaction & Job Alignment Analysis

- Applied PCA on survey data to analyze the relationship between academic background and career satisfaction.
- Visualized socio-economic correlations and factors impacting employment trends.

Startup Investment Recommendation Tool

- Scraped startup data from AngelList and applied NLP techniques (Word2Vec) to evaluate startup potential.
- Built a recommendation system based on growth, revenue, and domain analysis.
- Tools: Python, Selenium, Pandas, Word2Vec

CERTIFICATIONS & COMPETITIONS

Hack for Good
Hack for Good – Winner for AI-powered mental health solution

IEEEXtreme
IEEEXtreme 15.0 & 16.0 Global Coding Competitor

Python Certificate
SoloLearn Python Core Certificate

EXTRACURRICULAR & LEADERSHIP

ITLAB, *Member* 10/2024 – 06/2025
Participating in AI projects and collaborative learning

IEEE, *Member* 09/2021 – 08/2024
Led workshops and hackathons on AI and innovation

AIESEC, *Member* 01/2022 – 01/2023
Participated in global initiatives enhancing leadership and communication