Raed Mohamed Amine Hamrou

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💼 raed-med-amin-hamrouni 🐙 hamrouniraed07 🌐 Portfolio

🪪 Profile

Future Data Science engineer, specialized in Artificial Intelligence and predictive analytics, with a versatile background including software development experience. Passionate about new technologies and leveraging data to create innovative solutions, I combine technical rigor, collaborative spirit, and the ability to effectively solve complex problems.

🎓 Education

Polytechnic School of Sousse, Engineering Degree   **2024–Present**
- Specialization in Data Science

Higher Institute of Computer Science and Communication Technologies (ISITCOM), Professional Master's Degree   **2023–Present**
- Specialization in Web Services and Multimedia

Higher Institute of Computer Science and Communication Technologies (ISITCOM), Bachelor's Degree in Computer Science   **2020–2023**
- Specialty: Computer Science and Multimedia

💼 Professional Experience

Data Science Intern, ARSII - Sousse, Tunisia   **Jul 2025–Sept 2025**
- Designed a supervised classification model to predict postoperative complications following pediatric circumcision, enabling early identification of risk factors and improved medical follow-up.
- Technologies: Python, TensorFlow, NumPy, Pandas

Software Developer Intern (Bachelor's Final Project), VIVIA - Sousse, Tunisia   **Jan 2023–Jun 2023**
- Developed a customer complaints management module for the company's CRM system.
- Objective: Efficiently manage complaints and reduce processing time.
- Technologies: Node.js, React.js, PostgreSQL, Express.js

Software Developer Intern, SASTEC-SKILLS - Sousse, Tunisia   **Jul 2022–Aug 2022**
- Developed an online art gallery web application allowing users to sell their artworks.
- Technologies: React.js, Node.js, MongoDB, Express.js

Software Developer Intern, TUS - Sousse, Tunisia   **Aug 2021–Sept 2021**
- Developed a game (Wheel of Fortune) allowing customers to win prizes.
- Technologies: HTML, CSS, JavaScript

</> Projects

FitBox - AI Fitness Coach - GitHub   **Oct 2025–Jan 2025**
- Intelligent fitness and nutrition coaching application powered by AI, providing personalized workout plans, nutritional advice, and conversational coaching using advanced language models (Llama 3.2 via Ollama).
- Technologies: Python, Flask (RESTful API), Streamlit, Ollama/Hugging Face Transformers, Pandas, LoRA fine-tuning, PyTest

StudyPal (Gamified Learning Platform with Local AI) - GitHub   **Nov 2025–Dec 2025**
- Objective: Design a personalized learning platform that generates quizzes adapted to each user's level.

- Features: Automatic question generation, intelligent feedback, progressive difficulty, evolving avatars, points system, and leaderboard.
- Technologies: Python, FastAPI, SQLite, React, JavaScript, Ollama (Llama 3.2) for local AI.

Hotel Microservices Project - GitHub   Mar 2025–May 2025

- Hotel booking application based on microservices architecture with independent services (users, reservations, rooms, notifications) interconnected via gRPC, GraphQL, REST, and Kafka.
- Technologies: Node.js, Express, Apollo Server, gRPC, Kafka, Docker, OpenRouter (LLM)

Football Club Management - GitHub   Apr 2025–May 2025

- Web application for managing football clubs with complete CRUD functionalities for clubs, players, stadiums, and intuitive user interface.
- Technologies: Angular, Node.js, Express.js, MongoDB, HTML5, CSS3

Biological Age Estimation - GitHub   Feb 2025–May 2025

- Development of a regression model to predict biological age from dermatological data.
- Technologies: Python, Pandas, NumPy, Scikit-learn, TensorFlow/Keras, Matplotlib, Seaborn

🖥 Technical Skills

Programming Languages: Python, JavaScript, TypeScript, SQL, R

Frameworks & Technologies: React.js, Angular, Node.js, Express.js, Flask, FastAPI, Streamlit

Databases: SQL systems (PostgreSQL, MySQL), NoSQL systems (MongoDB)

AI & Machine Learning: Data exploration, descriptive statistics, supervised and unsupervised learning, regression, classification, clustering, LLMs (Ollama, Hugging Face Transformers), LoRA fine-tuning

Deep Learning: Neural networks, TensorFlow, Keras, PyTorch

Development Tools: Visual Studio Code, IntelliJ, Android Studio, Jupyter Notebook, Google Colab

DevOps & Architecture: Docker, Kubernetes, GitHub Actions, Git, Microservices, gRPC, GraphQL, REST APIs, Apache Kafka

Python Libraries: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, PyTest

Data Processing: Data cleaning, preparation, transformation, and time series analysis

☰ Activities

- Organization member of AAICE – African Agribusiness Incubation and Acceleration Investment at University of Sousse   **2025**
- Team leader at TWISE NIGHT CHALLENGE at Polytechnic School of Sousse   **2025**
- Team leader at Nuit de l'Info at Polytechnic School of Sousse   **2024**
- Team member at Nuit de l'Info at Polytechnic School of Sousse   **2024**
- Participant in IEEEXtreme organized by IEEE at ESSTHS Sousse   **2022**
- Participant in NODE-JS bootcamp organized by IEEE at ESSTHS Sousse   **2022**
- Organization team member at Nuit de l'Info at ISITCOM   **2022**
- Volunteer during the Coronavirus period at Red Crescent   **2020**

🌐 Languages

Arabic: Native language
French: Advanced
English: Intermediate
German: Beginner