Tayma MOKRANI

Software & Data Engineering Student
tayma.mokrani@fsb.ucar.tn — +216 23 997 499 — Bizerte, Tunisia
LinkedIn — Portfolio: taymamokrani.dev

Summary

Final-year Software and Data Engineering student with a strong foundation in Artificial Intelligence, Data Science, and Machine Learning. Skilled in developing intelligent systems and transforming data into meaningful insights. Currently seeking a Final-Year Internship (PFE) to apply and expand technical expertise in AI-driven or data-centric projects.

Experience

IDEA Lab FSB — Research Intern, Computer Vision **May – July 2024**
Developed CNN-based models achieving 96% accuracy for detecting abnormal behavior in surveillance videos. Handled data preprocessing, model training, and evaluation, contributing to an automated anomaly detection system.

SILKDEV — Graphic Design Intern **May 2024**
Conceived and developed client-tailored web projects using Framer, creating innovative components and UI features. Integrated AI functionalities such as a custom chatbot and letterbox, reducing reliance on external tools. Applied TypeScript to customize Framer components and explored underlying code to enhance web projects. Strengthened client communication, project management, and UX/UI design skills through hands-on experience.

Education

Faculty of Sciences of Bizerte 2023 – Present
B.Sc. Computer Science Engineering — Software & Data Engineering (Expected June 2026)

Faculty of Sciences of Bizerte 2021 – 2023
Integrated Preparatory Cycle — Mathematics, Physics, Computer Science

Technical Skills

Languages: Python, Java, JavaScript, SQL
Frontend: Angular, React.js, HTML, CSS, Bootstrap, Tailwind, Figma, Framer
Backend: Spring Boot, Node.js, Express.js
Databases: MySQL, MongoDB, OptimaDB
Tools & Platforms: Power BI, Git, OpenAI API

Academic and Personal Projects

- **Crowd Abnormality Detection:** Built CNN models for abnormal behavior detection in surveillance videos, handling preprocessing, model training, and evaluation.
- **Bot Detection on Instagram:** Developed a machine learning model to identify and analyze automated accounts, improving detection of fake profiles.
- **Accident Prediction in Home Insurance:** Applied data preprocessing and training techniques to predict accident risks using structured datasets.

- **Breast Cancer Detection:** Designed and trained models to classify cancer cases using preprocessed datasets, enhancing prediction accuracy.
- **Smart Safe using YOLO & IoT:** Developed a smart safe integrating ESP8266, YOLO object detection, and image recognition for enhanced security.
- **Simulated Annealing for VRPTW:** Applied heuristic optimization to the Vehicle Routing Problem with Time Windows, minimizing delivery costs.
- **Document Management Web App:** Built a full-stack web platform (Angular + Spring Boot) with role-based access for document organization.
- **Fitness App Prototype:** Designed a fitness mobile app UI/UX using Figma.
- **TV Series Management System:** Created a desktop application using JavaFX and JDBC for managing series collections.

Core Expertise

- **Machine Learning & AI:** Supervised/unsupervised learning, feature engineering, model deployment; Python (Scikit-learn, TensorFlow, PyTorch).
- **Deep Learning & Computer Vision:** CNNs for video/image analysis, anomaly detection, object detection (YOLO), texture/facial recognition.
- **Data Engineering & Visualization:** Data preprocessing, ETL pipelines, structured/unstructured data handling, Power BI dashboards.
- **Web Development & UI/UX:** Full-stack development (Angular, React.js, Node.js, Spring Boot); Figma and Framer based UI/UX design.
- **Optimization & Problem Solving:** Heuristic/metaheuristic methods (Simulated Annealing) for logistics and scheduling problems.