

SAFOINE TOUIL

AI & SOFTWARE ENGINEER

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/safoine-touil/



EXPERIENCE

Artificial Intelligence and Software Engineer

TAM RAM FASHION

May 2024 – Present

Zaghouan Governorate, Tunisia (Hybrid)

- Led digital transformation of textile and footwear manufacturing by developing **AI-driven** full-stack solutions to optimize production workflows.
- Designed a scheduling system with **Python** and **Google OR-Tools**, integrating **Gantt charts** to reduce delays and improve planning.
- Developed a cross-platform desktop app using **Electron.js**, **Python**, and **MongoDB** to digitize machine monitoring and production logging.
- Created real-time dashboards for **KPI tracking**, **anomaly detection**, and **predictive maintenance** to enhance operational insight.
- Automated supply decisions with a web scraping pipeline built on **BeautifulSoup** and **Selenium**.
- Built an **AI assistant** using a **large language model (LLM)** with **retrieval-augmented generation (RAG)** to support technical Q&A and anomaly detection.
- Implemented a **YOLOv8-based computer vision** model for defect detection, managing annotation (**Roboflow**), training (**Google Colab**), and deployment.
- Delivered end-to-end solutions in **Agile Scrum** teams, handling backend, frontend, data engineering, and deployment.

Computer Vision Intern – Medical Imaging

Taher Safar University Hospital

Feb 2024 – Apr 2024

Mahdia, Tunisia

- Led the development of a glaucoma detection model on fundus images using **TensorFlow**, **Keras**, and **OpenCV**, achieving a 98% accuracy rate and improving early diagnosis rates by 30%.
- Implemented advanced data augmentation strategies and managed the machine learning pipeline end-to-end, including preprocessing, training, evaluation, and deployment with **Python** and **NumPy**.

RESEARCH PAPER

Author – AICCSA 2024 – IEEE Conference

ACS/IEEE International Conference on Computer Systems and Applications

Oct 2024

Sousse, Tunisia

- Takwa Ben Aïcha, Heni Lachouak, Safoine Touil, A. Kacem Echi, and Samah Mbarek. "Hybrid CNN-Swin Transformer for Glaucoma Screening in Fundus Images". AICCSA 2024: The ACS/IEEE 21st International Conference on Computer Systems and Applications.
- Link: ieeexplore.ieee.org/document/10912542

EDUCATION

Engineering Degree in Artificial Intelligence and Data Science

EPI Digital School

Graduated 2025

Sousse, Tunisia

Bachelor's Degree in Computer Science

ISSAT Sousse University

Graduated 2022

Sousse, Tunisia

TECHNICAL SKILLS

CNN YOLOv8 Transformers LLMs AI
Generative AI LangChain TensorFlow
Keras OpenCV SQL NOSQL
Supervised Learning Unsupervised Learning
EDA Feature Engineering Scikit-learn
Python React.js React Native
Spring Boot NestJS PostgreSQL
MongoDB MySQL Hadoop Spark
Express.js Flask Docker AWS Git
Pandas NumPy Matplotlib Seaborn
Trello Linux Figma

CERTIFICATES

Fundamentals of Deep Learning
NVIDIA | September 2024

Applications of AI for Predictive Maintenance
NVIDIA | September 2024

Building Transformer-Based NLP Applications
NVIDIA | September 2024

AWS Academy Graduate – Cloud Foundations
Credly | April 2024

SOFT SKILLS

Hard-working Communication
Team Work Problem Solving Abilities
Flexibility