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KHATIB IMEN

AI RESEARCHER | SOFTWARE ENGINEERING STUDENT

ABOUT ME

I am a dual-degree candidate in Computer Engineering (M.Eng) and Artificial Intelligence Research (M.Sc), currently pursuing a Master's degree in AI Research at ISITCom and in the 4th year of a Software Engineering program with a specialization in AI at EPI. As a passionate junior research student, I am inspired by the transformative potential of artificial intelligence and highly motivated to contribute through impactful research. I am currently working on a research paper in the field of AI and hold industry-recognized certifications from AWS Cloud, IBM, and NVIDIA in Deep Learning, which strengthen my technical foundation and support my ambition to become a successful AI researcher.

SKILLS

- AI/ML: TensorFlow, Keras, CNN (Convolutional Neural Networks), SVM (Support Vector Machines), Computer Vision (OpenCV), NLP (Natural Language Processing)
- Data Science: Pandas, NumPy, Scikit-learn, Matplotlib, PCA
- Web Dev: React.js, Node.js, MongoDB
- Tools: AWS, Git, Jupyter, Figma, Protege OWL
- Languages: Python , JavaScript, C/C++, Java

EDUCATION

Dual Degree Program

M.Sc. Artificial Intelligence & Data Analytics

ISITCom Sousse | Thesis Phase

2023–2025

- Specialized in Deep Learning (CNN, NLP) and AI models.
- Develop intelligent applications by implementing theoretical models (TensorFlow/PyTorch) into scalable solutions (APIs, edge devices).

Software Engineering (AI)

EPI International School | 4th Year

2023–Ongoing

- Strong focus on software development and AI integration.
- I apply various artificial intelligence solutions across different applications to make them more fluid, innovative, and intelligent.
- **Motion Detection App:** Integrated CNN models (TensorFlow Lite) for real-time motion analysis
  Tech: Python, TensorFlow ,Keras ,OpenCV, Mediapipe
- **Academic HR Management Tool**: Developed NLP for automated CV screening in an academic project PFA, designed for Human Resources management.
- Dashboard with React.js + Node.js backend

Bachelor's Degree Computer Systems Engineering

ISITCom Sousse

2021 – 2023

- Key Skills: Web Development, Mobile App Development, Agile Project Management, Entrepreneurship , Scrum , IOT, AI

PROFESSIONAL EXPERIENCE

Developer Intern

January – April 2025 | IMotion+, Monastir, Tunisia

- Developed a full-stack intelligent HR management web application: FindJob .Focused on building an AI-powered virtual interview system
- **Features:** AI-powered virtual interviews, automated candidate tracking, and dynamic competency matrix visualization
- **Tech Stack:** React.js, Node.js, MongoDB, Python, NLP (Mistral-7B), Edge-TTS, SadTalker [Demo]

Full-Stack Developer Intern

Feb – Jun 2023 | Nxtya, Monastir, Tunisia

- Built e-commerce platform (mobile app |React Native/Node.js & web app | PrestaShop)
- Produced marketing assets (infographics, logos) using Figma

PROJECTS

AI Vision Projects: YouTube Gesture Controller & Eye Attention Tracker

April 2025

- Developed an intelligent system capable of controlling YouTube using hand gestures and detecting eye inattention during driving situations to trigger an alarm. [URL Github] [Demo]
- **Tech Stack:** Python, OpenCV, MediaPipe, PyAutoGUI, Threading

Real-Time Emotion Recognition System

Mars 2025

- Built a CNN model trained on FER-2013 (65% accuracy) to classify 7 human emotions (joy, anger, sadness)
- Integrated Mediapipe for facial edge detection and Streamlit for real-time webcam analysis
- **Impact:** Potential applications in mental health monitoring and human-computer interaction [URL Github] [Demo]

Generative AI Chatbot

Feb 2025

- Developed a conversational assistant for software development queries using OpenAI's API
- Designed backend architecture with Node.js/Express.js and implemented rate limiting
- **Key Skill:** Practical understanding of LLM integration and prompt engineering [URL Demo]

Twitter Sentiment Clustering

Dec 2024

- Analyzed 10k+ tweets using NLP pipelines (NLTK, TF-IDF) and KMeans clustering
- Reduced dimensions with PCA for 2D visualization of opinion trends
- **Tech Stack:** Python, Scikit-learn, Tweepy, Kaggle API [URL Github]

ACHIEVEMENTS & PUBLICATIONS

Master's Thesis (Ongoing)

Feb 2025 – Present

- Ensemble Learning on Real-World Data for Olive Oil Authentication and Olive Tree Yield Prediction: Research work accepted for presentation at IEEE AMCAI 2025, Valenciennes, France (October 14–16, 2025).
- This work proposes an ensemble learning framework (Bagging with Random Forest and Extra Trees) to authenticate Tunisian olive oils and predict olive tree yield by fusing biomass, spectroscopic, and climatic data. The approach improves robustness, accuracy, and stability compared to single-source models.

CERTIFICATIONS

- Fundamentals of Deep Learning (Apr 2025) | **NVIDIA** [URL]
- NLP with Transformers (Feb 2025) | **NVIDIA** [URL]
- Generative AI with Diffusion Models (Apr 2025) | **NVIDIA** [URL]
- AWS Cloud Foundations (2022) | **Amazon Web Services** [URL]
- CCNA: Introduction to Networks : **Cisco** [URL]

- Generative AI Essentials for Software Developers (Feb 2025) | **IBM** [URL]
- Budgétisation et planification de projets (Sept 2024) | **University of California, Irvine** [URL]
- Business Analysis & Process Management (Sept 2024) | **Coursera** [URL]