Nour Maatouk

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Proficient in spoken and written English, French (DELF B2) and Arabic

HIGHLIGHTS

Software engineering student passionate about **computer science** and **data science**, I excel in **software development** and **artificial intelligence**. I have led and contributed to several **tech projects** and **competitions**, combining **problem-solving skills** and adaptability to deliver **innovative solutions**. I am currently seeking a **final-year internship (PFE) opportunity** to conduct research and contribute to advanced **AI-driven projects**.

EXPERIENCE

Talan July 2025 – Aug 2025
Artificial Intelligence Intern *Onsite - Tunisia*
- Gathered and integrated structured and unstructured data, designed a graph-based architecture with GraphRAG to connect and analyze relationships, applied multi-agent reasoning to detect patterns and support decisions, developed queries and visualizations to turn data into insights, and evaluated performance against traditional analytics methods.

  Key words: Python, GraphRAG, Multi-agent, Knowledge Graph, Neo4j

EPT/Lasmap - Université de Carthage May 2025 – Jun 2025
Research Intern *Remote*
- Research on human motion analysis, focusing on automatic posture detection using AI and computer vision, evaluation of 2D/3D pose estimation algorithms (OpenPose, Mediapipe), and application to workplace ergonomics to predict postures and reduce musculoskeletal disorder risks.

  Key words: Python, Matplotlib, OpenCV, Mediapipe, OpenPose, BlazePose

Ozeol.com Jun 2024 – Aug 2024
Artificial Intelligence Intern *Onsite - Tunisia*
- Developed an AI-based solution to identify potential suppliers by analyzing Ozeol's historical transactional data, leveraging machine learning techniques to improve supplier selection and optimize business decisions.

  Key words: Python, ML (Scikit-learn, TensorFlow, XGBoost), Pandas, NumPy, Matplotlib, Seaborn

EDUCATION

National Engineering Diploma in Computer Science Polytechnic school of Sousse, Tunisia
2026

Preparatory Class in Computer Science Polytechnic school of Sousse, Tunisia
Sep 2021 - Jun 2023

Baccalaureate in Mathematics Bourguiba High School, Monastir, Tunisia
2021

PROJECTS

Movie Recommendation Microservices System April 2025
presentation
- Built a microservices system with REST/GraphQL APIs, Docker deployment, and MongoDB for data management.

Predicting Arrest Outcomes in Los Angeles April 2025
presentation
- Analyzed LA arrest records to identify key factors affecting outcomes.
- Built predictive models (Logistic Regression, Random Forest, SVM, Neural Networks) and visualized results with interactive dashboards.

Burnout Shield March 2025
Mental Health Monitoring Application
- Developed AI models analyzing wearable time series data to evaluate mental health.

- Implemented a personalized therapeutic support system based on a language model.

FungiScan AI Feb 2025

presentation
- Created a Streamlit web app to detect fungal diseases in plant leaves from uploaded images.
- Used a fine-tuned MobileNetV2 CNN model with TensorFlow/Keras for real-time classification.

CERTIFICATIONS

Microsoft Azure AI Fundamentals (AI-900) May 2024

Issued by Microsoft

NVIDIA Certifications Sep 2024

Issued by NVIDIA
- Building Transformer-Based Natural Language Processing Applications
- Deep Learning Fundamentals
- Applications of AI for Predictive Maintenance
- Applications of AI for Anomaly Detection

Machine Learning Specialization May 2024

Issued by Coursera

Cisco Networking Academy Aug 2024

Issued by Cisco
- DevNet Associate
- CCNA: Switching, Routing, and Wireless Essentials

AWARDS

1st Place – Challenge Revolutionizing Agriculture with AI
ARSII & Centre de Recherche en Microélectronique et Nanotechnologie (CRMN)
1st Place – Challenge on Structural Optimization of Composite Plates with AI
ARSII & EPT/Lasmap - University of Carthage
1st Place – IAS TAM 4.0 Technical Challenge
IEEE Industrial Applications Society & DATAVERSE
1st Place – AI Night Challenge
ARSII & Novation City
2nd Place – Mental Health Technical Challenge
Tunisian Students and Young Professionals Congress & IEEE EMBS
2nd Place – AI Impact Challenge
American Corner Sousse
3rd Place – SIGHT Day Congress Technical Challenge
IEEE Tunisia Section

SKILLS

Programming Languages: Python, Java, JEE, C/C++, JavaScript, SQL, PHP.

Machine Learning Data Science: Scikit-learn, TensorFlow, XGBoost, Keras, PyTorch, Pandas, NumPy, Matplotlib, Seaborn, Plotly, OpenPose, MediaPipe.

Web Development: HTML, CSS, JavaScript, Angular, Flask, FastAPI, Node.js, MySQL, MongoDB.

Tools, Frameworks Platforms: Git, Docker, Kafka, Postman, Trello, Figma, Eclipse, Android Studio, Linux, Microservices, Neo4j, Knowledge Graph, GraphRag, MCP tools, Multi-agent systems.

VOLUNTEER EXPERIENCE

Founder and Chair IEEE EPS SIGHT

Jun 2024 - Feb 2025
- Led the chapter, organized events, and coordinated regular meetings.

Founder and General Secretary IEEE EPS CS SBC

Jan 2024 - Jan 2025
- Managed chapter operations, documented meetings, and wrote detailed reports.

Technical Team Volunteer ACM EPS

Oct 2022 - Jul 2023
- Participated as a volunteer in TCPC 2023 and TCPC 2025, supporting technical events and workshops.