

MOHAMED AZIZ CHERIF

Engineering Student

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EDUCATION

National Institute of Applied Science and Technology

Engineering Degree

Tunis, Tunisia

September 2019 - Present

Major in Computer Networks and Telecommunications; **Minor** in Image and Video Analysis.

Relevant Coursework: Machine learning, Deep Learning, Big Data, Business Intelligence, Image Processing, Video Processing, Language Theory

WORK EXPERIENCE

EFREI Research Lab

Data Science Intern

Paris, France

June 2023 – August 2023

- Performed Processing and Data Visualisation on hyperspectral images of various Fruits.
- Implemented Principal Component Analysis (PCA) to achieve a 60% reduction in features dimensions
- Employed diverse machine learning models, including Support Vector Machine (SVM), Random Forest, and Logistic Regression, and integrated them into an ensemble model, achieving an accuracy of 93%.

IEEE Robotics and Automated Society

Computer Vision Engineer

Tunis, Tunisia

September 2022 – May 2023

- Implemented a computer vision algorithm to simultaneously track and monitor more than 10 moving objects in real-time within a defined field using OpenCV.
- Executed code on a Raspberry Pi, integrating a camera module, to transmit learned object positions to another device via LoRa communication.

PROJECTS

CI/CD Pipeline | Docker · Kubernetes · Git · Jenkins

October 2023

- Implemented end-to-end automated testing within CI/CD pipelines using tools such as Git, Docker, Kubernetes, Jenkins, containerizing a Maven-based application.

DocSecure ChatBot | LLM · HuggingFace · LangChain

October 2023

- Created an offline chatbot using LangChain, HuggingFace, and Large Language Models (LLMs) that can seamlessly interact with your documents, ensuring data confidentiality and complete privacy.

Bach Music Generation | LSTM · NLP · TensorFlow

August 2023

- Designed and developed a Long Short Term Model (LSTM) based model to generate Bach-Style music compositions.

Chest X-Ray Classification | AlexNet · Computer vision · Transfer Learning · Pytorch

July 2023

- Utilized a pre-trained AlexNet model and fine-tuned it on a dataset for distinguishing between normal and pneumonia cases in chest X-ray images, resulting in an accuracy of 92.6%.

Poverty Mapping through Satellite Imagery | CNN · Computer vision · Research

January 2023

- Collaborated with a team of 4 members to extend Stanford University's research to improve a CNN model's feature extraction from satellite images for wealth index prediction.
- Tested the method on the night time satellite imagery of Tunisia.

ACTIVITIES

INSAT Android Club

Workshop Manager

Tunis, Tunisia

September 2021 – May 2022

- Instructed students in Flutter app development through 12 workshops, empowering over 30 participants with valuable skills.
- Collaborated in organizing club events, leading one with 200+ participants and featuring presentations from over 10 promising startups.
- Delivered a detailed speech, providing event details to an audience of over 100+ attendees.

SKILLS

Skills Programming languages: Python, SQL, C, C++, Java, JavaScript.

Machine learning & Data Visualization: Python (eg. Numpy, Pandas, Matplotlib, Sickit-learn), TensorFlow, Keras, Pytorch, FastAI, NLTK, OpenCV, Power BI.

Environments: Visual Studio IDE, Google Collab, Anaconda (Jupyter Notebook), Microsoft Azure.

Miscellaneous Technologies: Linux, Git, Excel, Docker, Kubernetes, Jenkins.

ADDITIONAL

Certifications & Training: [Associate Data Scientist \(Datacamp\)](#), [Probability \(365 DataScience\)](#), [Statistics \(365 DataScience\)](#)

Languages: French (Fluent), English (Fluent), Arabic (Native)