AHMED CHERIF

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Education

- **Preparatory Institute for Engineering Studies (ranked 61 among 1200 candidates),** IPEIS *2 years* *2018-2020*
- **National School of Computer Science** Manouba, Tunisia *engineering diploma* *3 years* *2021-2024*
- **Baccalaureate Diploma in mathematical Science**

Summer Internships and Experience:

• Software Engineer | Fysali SAS Bio-incubateur Eurasanté France **Lille, France**

19/7/2023 - 20/09/2023

Developed an application to prevent medical violence and managed a comprehensive database for a cutting-edge Medical Text Classification Application, leveraging advanced Natural Language Processing (NLP) techniques. The application automatically categorizes medical texts into "non-medical violence" and "Medical violence" categories, providing rapid insights. It serves as a valuable tool for enhancing healthcare communication and awareness.

►Developing an application to prevent medical violence

►Successfully tested and implemented various NLP models to optimize the accuracy.

►Designed and maintained a well-organized database crucial for model training and evaluation.

►Collaborated in the creation of a user-friendly interface, ensuring accessibility to a wide audience.

►Contributed to the mission of improving healthcare transparency and understanding.

Keywords: NLP, Transformers, Transfer Learning, Bert, Distilbert, Universal Encoder, CNN, RNN, LSTM Streamlit, Data Mining, Deep learning

• Software Engineer | Mosofty **Tunis, Tunisia**

01/07/2023 - 30/08/2023

During my summer internship, I worked on a project aimed at enhancing the performance of the company's Optical Character Recognition (OCR) system. My primary role involved developing an artificial intelligence module to improve text recognition accuracy in scanned documents. Additionally, I created an Excel-based database to train and evaluate the model, resulting in a significant reduction in recognition errors. Also, I developed a Flask-based microservice to automatically extract information from CVs. The project aimed to streamline and expedite the recruitment process by extracting data. In summary, I focused on improving the OCR system's performance and developed a microservice to extract information from CVs, enhancing efficiency in the recruitment process.

►Designed and developed an artificial intelligence module using Flask to enhance the OCR system's performance.

►Utilized the XGBoost algorithm and XMLRegressor for optimizing text recognition accuracy.

►Gathered and prepared relevant data from scanned documents for model training.

►Created and managed an Excel-based database for model training and evaluation.

►Conducted rigorous testing to assess the module's performance and accuracy.

►Thoroughly documented the implemented methods and achieved results.

►Designed and developed a Flask microservice for extracting information from CVs.

►Extracted structured data from CV documents in various formats.

Keywords: Flask, Docker, Jenkins, CI/CD, Machine Learning, XGBoost, XMLRegressor, Python, Microservice

• Data Scientist | Centre de Recherche en Numérique **Sfax, Tunisia**

15/07/2021 - 30/09/2021

The proposed internship project aims to develop a system that will recognize static sign gestures and convert them into corresponding words.

Keywords: LSTM, Tensorflow, Python

Research Projects:

- **Design and development project: Ask multiple pdfs using Longchain:** *Link*

About The MultiPDF Chat App is a Python application that allows you to chat with multiple PDF documents. You can ask questions about the PDFs using natural language, and the application will provide relevant responses based on the content of the documents. This app utilizes a language model to generate accurate answers to your queries.

Keywords: Longchain, Deep Learning, Streamlit

- **Design and development project: gRPC Text Summarization:** *Link*

The "gRPC Text Summarization Demo" is a project that demonstrates text summarization using gRPC (Google Remote Procedure Call). It allows you to send a piece of text to a server, which then uses a pre-trained model to generate a concise summary of the input text.

Keywords: Protobuf, Grpc, Transfer Learning, Python

- **Design and development project: Disease Detector App:** *Link*

The project involves developing an application using AI to analyze images and identify signs of diseases with high precision. One of the key advantages of this approach is that it can be implemented at a low cost, making it accessible to a larger number of people.

Keywords: Vgg16, Flask, Python, Data Mining, Deep Learning, Docker, AWS

- **Design and development project: PAN Card Tampering Detection:** *Link*

The purpose of this project is to detect tampering of PAN card using computer vision. This project will help different organization in detecting whether the Id i.e. the PAN card provided to them by their employees or customers or anyone is original or not.

Keywords: Data Science, Computer vision, Web development, Flask, Python, JavaScript

- **Text Extraction from Images Application:** *Link*

In this project, I have worked on extracting text from images. After extracting the text by applying, some basic functions of OpenCV on that text to enhance it and to get results that are more accurate, it will save time and effort of typing from an image.

Keywords: OCR, Computer vision, Web development, Flask, Python, JavaScript

- **Vehicle Detect-Count APP:** *Link*

Vehicle Detect-Count APP: In this project, I have worked on detecting and counting vehicles in a given image or a video. I have used OpenCV for image processing and Haar cascade which is used for object detection

Keywords: Data Science, CNN, Computer vision, Web development, Flask, Python, JavaScript

- **Sentiment Analysis Django App:** *Link*

A sentiment analysis tool is an AI software that automatically analyzes text data to help you quickly understand how customers feel about your brand, product or service.

Keywords: NLP, NLTK, Django, JavaScript, Logistic Regression, Web development

- **Face Sentiment Detection with Raspberry Pi**: *Link*

I have estimated facial sentiment using Tensorflow Object Detection on a Raspberry Pi with TFLite.

Keywords: Raspberry Pi, Tensorflow, Python

- **Coronavirus tracker app with Spring Boot and Java:** *Link*

In this project, I have built a Java Spring Boot application from scratch to track reported data of confirmed Coronavirus infections COVID-19 (2019-nCoV) around the world.

Keywords: Spring boot, Thymeleaf, API

Skills Summary

- **Languages**: C, C++, JavaScript, Php, Mips, Python, Vhdl, R
- **Frameworks**: AUTOSAR, STM32, Freertos, Rpc, Grpc, Rasberry pi, Yocto, QT, , Buildroot, PyTorch, TensorFlow, Keras, Numpy, Pandas, NLTK, Opencv, Seaborn, Matplotlib, Flask, Streamlit, SQL, Power Bi, Excel, CI/CD, Docker, Kubernetes, Jenkins, Aws, Git-GitHub, SSh
- **Soft Skills**: Leadership, Event Management, Writing, Public Speaking, Time Management, Communication
- **Skills**: Embedded C, Embedded Linux, Software engineering, Computer Vision, Natural Language Processing, Deep Learning, Machine Learning, Reinforcement Learning,

Certification

- **Fundamentals of Red Hat Enterprise Linux** Coursera/ Red Hat
- **AI For Everyone** Coursera/ DeepLearning.AI
- **Object-Oriented Data Structures in C++** Coursera/ University of Illinois at Urbana

Volunteer Experience

- **Member of ENSI Competitive Programming Club**