Malek Abida

ICT Engineering Student

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My Website https://malek0007.github.io/Portfolio/

Profile

A motivated final-year ICT engineering student with a passion for **Artificial Intelligence**, particularly in the fields of **Machine Learning, Deep Learning, NLP and Generative AI**.
Actively seeking opportunities to apply my skills in **AI** research and development.

Experience

- **Huawei[]** *08/2024 – present*
  AI Intern Tunis, Tunisia []
  - Developed a **MERN** dashboard to display Huawei Nodes information.
  - Incorporated **data processing and visualization** techniques, which improved the efficiency of node management by 30%.
  - Developed a customized Q&A **chatbot** using the **GPT-4** model, improving user experience by providing accurate responses.
  - Deploying the user dashboard application on Huawei Cloud.
- **Comar Insurances []** *07/2024 – 08/2024*
  AI / Generative AI Intern Tunis, Tunisia []
  - Explored **Natural Language Processing (NLP)** techniques for text processing.
  - Researched and applied advanced techniques in **Generative AI** and **Fine Tuning** to enhance text generation capabilities.
  - Developed a text generation application using **NLP** and **HuggingFace** models for Large Language Models (**LLM**) techniques.
- **Tunisian Post[]** *07/2023 – 08/2023*
  Machine Learning Intern Tunis, Tunisia []
  - Explored the applications of **Artificial Intelligence** in the financial sector.
  - Developed a price prediction model using **Linear Regression** Algorithm of **Machine Learning** with 98% accuracy.

Education

- **Higher School of Communication of Tunis (SUP'COM)[]** *09/2022 – present*
  ICT Engineering Diploma Ariena, Tunisia
- **Tunis Preparatory Engineering Institute (IPEIT)[]** *09/2020 – 06/2022*
  Admission in National Competitive Examinations for access to the Engineer Training Cycles Tunis,Tunisia

Projects

- **AI-Assisted Data Migration using Generative AI associated with EY Tunisia** *09/2024-present*
  Tools: Generative AI, NLP, LLM, Machine Learning
  - Researched Predictive Analysis of data schemas using **NLP**.
  - Researched techniques for the Automatic Generation of Migration Scripts, focusing on improving efficiency and accuracy in data migration processes.
  - Explored the use of Generative Adversarial Networks (**GANs**) for data validation and quality assurance.
- **Plant disease detector** *07/2024*
  Tools: Deep Learning, MLOps []
  - Researched and identified the most accurate deep learning algorithm for this model.
  - Built an end-to-end deep learning project for image classification using **CNN** to detect plant diseases.
  - Deployed the model using **MLOps** practices.
- **Cloud Native e-commerce application with devops automation** *01/2024-06/2024*
  Tools: Docker, Kubernetes, Jenkins, Pytest []
  - Researched microservices architecture, **DevOps** tools, and practices.
  - Developed a MERN e-commerce platform for smart home devices.

- Implemented a microservices architecture to enhance testing capabilities, inspired several teams to adopt microservices.
- Integrated DevOps automation tools and deployed the application on Microsoft Azure.

- **Text Summarizer** *04/2024*
  Tools: Hugging Face,Flask [GitHub]
  - Researched Hugging Face Transformers and Pre-trained Models.
  - Developed a Flask web application for automatic text summarization.
  - Integrated the **Hugging Face** BART model to generate text summaries based on user-defined summary length.

- **My Chatbot** *03/2024*
  Tools: NLP,Deep Learning, Flask [GitHub]
  - Implemented **NLP** techniques to preprocess and analyze user inputs before passing them to the classification model.
  - Trained a **deep learning** model using Keras and TensorFlow to classify user inputs (sentences) into predefined intents, allowed the program to respond appropriately based on a JSON file.
  - Developed a Flask-based chatbot web application that uses **NLP** and the trained **deep learning** model to facilitate interactive user engagement.

SKILLS

- **Artificial Intelligence :**
  - **Frameworks & Libraries**: Scikit-Learn, TensorFlow, Keras, PyTorch
  - **Natural Language Processing (NLP)**: NLTK, SpaCy, Hugging Face
  - **Generative AI (GenAI)**: GPT4-model, GANs
- **Programming Languages:** Python, MATLAB, C++, C, Kotlin
- **Mathematics:** Calculus, Linear Algebra, Probability, Statistics, Optimization
- **Web Technologies:** React.js, Node.js, Flask, HTML, CSS, JavaScript
- **Database Systems:** MySQL, MongoDB
- **Software Development Tools :** Git, Docker, Kubernetes, Jenkins, Pytest
- **Operating Systems :** Windows, Linux

AWARDS

First Place at "Challenge Projets d'Entreprendre", competed against 30 teams *05/2024*
Sup'Com [Web]
- Developed a prototype of mobile application for the digitalization of contracts using **AI** techniques OCR, **NLP**, and **LLM**.

Second place at artificial intelligence national summit 2023 *06/2023*
IEEE INSAT SB [Web]
- Developed a website resembling a virtual legal assistant, leveraging **LLM**s to identify and highlight ambiguities and contradictions within contracts.

Skills :Team Collaboration, Communication, Creativity, Problem Solving.

VOLUNTEER EXPERIENCE

- **Active Member in ACM** *10/2022 - Present*
  Sup'Com
  - Participated in the international programming competition TCPC'2024 in September 2024.
  - **Skills:** Problem Solving, C++

- **Python Teacher: "Python For All"** *12/2022 - 06/2023*
  Kaffel Al Yatim [Web]
  - Taught students the basics of the **Python** programming language at the Kaffel Al Yatim association, Ariena.
  - **Skills:** Python

- **Active Member in IEEE Computer Science** *10/2022 - 06/2023*
  Sup'Com
  - Attended Workshops in Machine Learning and Deep Learning.
  - **Skills:** Machine Learning, Deep Learning

LANGUAGES

- English : Level B2 , **TOEIC** Score: 840/990
- French : Level B2
- Arabic : Native