Karim Mohamed Ahmed Abdelsalam

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Professional Summary

As a senior college student majoring in Artificial Intelligence, I have honed my expertise in Python programming and machine learning. Proficient in leveraging APls and Flask servers, l excel in integrating technologies to develop seamless applications. Additionally, I possess hands-on experience with Docker and familiarity with Google Cloud technologies, enhancing my ability to deploy and manage scalable software solutions. Eager to apply my skills and contribute to innovative projects in the field of Al. I am committed to utilizing my skills to further expand my knowledge in programming.

Experience

AI Summer Intern, IBM (Health-care industry)   *July 2024 - September 2024*

- Led a group within the AI team, managing collaboration and task distribution to solve complex problems in healthcare applications.
- Developed and fine-tuned AI models, including **LLMs**, **LangChain**, and **RAG**, to design intelligent chatbots and automated solutions for patient EMR collection.
- Led the creation of a medication conflict detection system, using AI to identify potential risks and alert doctors and patients.
- Implemented OCR models to extract data from ID cards, medical documents, and insurance cards, ensuring accurate form-filling automation.
- Collaborated with a cross-functional team of 20+ members to deliver innovative healthcare solutions under tight deadlines.
- Enhanced leadership and communication skills through effective team coordination, problem-solving, and mentoring fellow interns.

AI Summer Intern, IBM (Travel and Tourism Industry)   *August 2023 - October 2023*

- Integrated ChatGPT into an application using APis to enhance user interaction and experience.

- Developed proficiency in utilizing APis and Flask servers in Python to facilitate seamless communication between different components of the application.

- Acquired hands-on experience with Docker, deploying and managing containers for efficient software deployment and scalability.

- Gained exposure to Google Cloud technologies, exploring cloud-based solutions for application development and deployment. • Collaborated effectively within a large team environment, contributing to project discussions, sharing insights, and coordinating tasks to achieve project goals

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Education

BSc Artificial Intelligence, Nile University *September 2021 - July 2025*

- Presidential Honor Spring 2024

-Dean's Honor Spring 2023

-Dean's Honor Fall 2023

-Expected to graduate with a GPA of 3.9 with highest honors

Projects

Resume Ranking System *December 2024*

- Developed an advanced pipeline to evaluate and rank resumes against job descriptions using LLaMA 3.3 and ensemble models.

- Generated an ideal "perfect candidate" profile from job descriptions using LLaMA 3.3 for targeted evaluation.

- Implemented cosine similarity metrics to compare the original resume and job description.

- Conducted comparative analysis between job descriptions, perfect resumes, and actual resumes, leveraging LLaMA 3.3 for scoring and hire/do-not-hire recommendations.

- Validated LLaMA evaluations using GPT-4 to ensure reliability and consistency in candidate assessments.

Sentiment Analysis with BERT and Big Data Tools *November 2024*

- Designed and implemented a deep learning model for sentiment analysis utilizing BERT for natural language processing.

• Conducted Exploratory Data Analysis (EDA) to identify trends and patterns in a dataset of 3 million rows.

• Processed and managed large-scale datasets using Apache Spark and Hadoop, ensuring efficient data handling and preprocessing.

• Optimized data pipelines for smooth model training and evaluation, enabling actionable insights and scalability in sentiment analysis for high-volume data environments.

Other Projects

- Created a mobile app that runs LLMS locally

- Built a **transformer** model that analyzes brain signals for BCI

- Devised a CNN classification model for dysarthria disease

- Developed a weather using APIs in python

Technical Skills

- **Artificial Intelligence (AI)**: LLMs, Generative AI, LangChain, RAG

- **Machine Learning**: Model fine-tuning, OCR, CNNs

- **Natural Language Processing**: Chatbot development, Semantic search

- **Data Management**: CSV manipulation, Data extraction

- **Cloud**: Google Cloud, Containerization, WSL

- **API Integration**: Watsonx, Google Vision API

- **Version Control**: Git, GitHub

- **Edge Computing**: LLM deployment on mobile devices

Soft Skills

- **Leadership**: Team management, Task delegation, Group coordination

- **Communication**: Cross-functional collaboration, Feedback implementation

- **Problem-Solving**: Innovative healthcare solutions, Fast adaptation to new tools

- **Project Management**: Delivering results under tight deadlines, Prioritizing tasks

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Certifications

- **Machine learning Scientist in Python** (Datacamp, 85 Hours)

- **Image processing in Python** (Datacamp, 12 Hours)