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Education

Alexandria University **Sep. 2020 – June 2024**
Bachelor of Science in Computer and Data Science (major AI), GPA:3.828 *Alexandria*

Coursework and Cerifications

- Algorithms and Data Structures
- Deep Learning
- Machine Learning
- Database Management
- Artificial Intelligence
- Probability and Statistics
- Linear Algebra
- Computer Vision
- Natural Language Processing
- LLM

Tensorflow Certification: Certification (This certification provided by Tensorflow only 21 person in egypt have it Google Developers Certification)

AWS Cloud Technical Essentials: Certification

Generative Deep Learning with TensorFlow: Certification Provided by DeepLearning.AI

Natural Language Processing: Certification Provided by DeepLearning.AI

Experience

Egyptian Projects Operation and Maintenance (EPROM) **August 2022 – October 2022**
Database Developer Intern *Alexandria – Egypt*

- The company wanted to change their database system from using only papers to being digital.
- I was responsible for making the database related to employees for sending requests to the manager (e.g., if they want to take a vacation) and the manager database that has the authority to accept or deny.
- Used SQL, PL/SQL, and Oracle Apex for this project.

TechWebInnovations OÜ **September 2024 – Present**
Junior Web Designer and Infrastructure Admin *Germany*

- Design and develop custom websites for clients using platforms like WordPress,WooCommerce, and Divi.
- Create visually appealing, user-friendly websites tailored to client needs, ensuring brand consistency and optimal user experience.
- Integrate AI-driven features and tools into websites enhance functionality and client satisfaction.
- Support the company's Linux-based infrastructure that powers client websites, including system monitoring, troubleshooting, and optimization.
- Assist in the deployment and management of Docker containers and other technologies to ensure reliable service delivery to clients.

Singularity Labs **January 2025 – Present**
AI/LLM Intern *Cairo – Egypt*

- Developed expertise in Retrieval-Augmented Generation (RAG) and AI Agents for intelligent automation.
- Worked on Sales Agent AI, improving response accuracy using RAG-based search techniques.
- Tested different LLM models.

Projects

Hieroglyphic OCR and Translator **February 2024 - May 2024**

- Developed an OCR and translator for hieroglyphic characters. Tourists can take a picture of an Ancient Egyptian wall and receive a translation of what is written on the wall.
- Implemented using Python, Tensorflow, Keras, and the concept of transfer learning (Detectron2 model).

MonoTalk (Graduation Project) **February 2023 - June 2024**

- Developed a mobile application and a web application for real time interaction with monuments in the museums and share our culture all over the world.
- Implement a CNN model for place detection and provide the right information about the place uploaded to the model (create a model from scratch using tensorflow ,then using ResNet (transfer learning concept).
- Implement a multilingual sentiment analysis model by concatinate three difference models one for detecting the comment language,one for translation and finally the sentiment analysis model(BERT model).
- Using text to speech and speech to text for the interaction with the LLM.

Healthcare Website   **May 2024**
- Created a website to detect if there is a heart disease or not, take an X-Ray image of a breast and detect if the patient has COVID-19, viral pneumonia, or is normal, provide a chatbot, and symptom to disease matching.
- Implemented using HTML, CSS, Node.js, Flask, Python, Tensorflow, Keras.

Tavla Website   **April 2023**
- Created a website for a furniture hub called Tavla.
- Implemented using Node.js, MongoDB, React.js, JavaScript.

Image Classification for Egyptian Historical places
- Created a model that classify image of places in Egypt and give information about this place after classification.
- Implemented using Python,Tensorflow,Keras.

Ventilator Pressure: EDA
- Provided with 75,450 non-contiguous cycles each cycle is uniquely provided with 75,450 non-contiguous cycles each cycle is uniquely labelled with an individual breath-id of the PVP1 automated ventilator connected to a high-grade test lung (Quicklung, Ingmar Medical) Three different values of the compliance (C) were tested [10,20,50] mL cm H2O in conjunction with three different values of resistance (R) [5,20,50] cm H2O/L/s, resulting in a total of 9 different lung settings.
- Solved by using sequentiel Model.The Model was bidirectional-LSTM

Hand detector and traking
- Detecting hands in real time application and traking them.
- Calculate the distance between the index finger and the thumb then moving a servo motor depending on that distance
- Implemeted using Python,mediapiepe,Cv2.

Skills

Technical Skills
- **Languages/Libraries**: Python, Java, Node.js, Tensorflow, C++, HTML/CSS, JavaScript, SQL/MySQL, MongoDB, Numpy, Matplotlib, Pandas, Android
- **Developer Tools**: VS Code, Eclipse, Netbeans, Google Colab, Android Studio
- **Technologies/Frameworks**: GitHub, Oracle Apex

Languages
- Arabic (Native),French (Fluent),English (Fluent),German (Basic)