Ziad Sakr

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Education

Ain Shams University   **Sep. 2019 – June 2024**
Computer and Systems Engineering.   *Cairo, Egypt*

Experience

Global Brands Group   **July 2024 – Present**
AI Engineer   *Cairo, Egypt*
- Developed a powerful application that leverages LLMs to automatically extract key data from CVs and store it in a structured format within a database. The system allows users to interact with this data through natural language queries, utilizing LangChain and Prompt Engineering to facilitate a seamless conversational interface.

Siemens Software Diploma   **July 2024 – Present**
- I explored a diverse range of topics, including algorithms, problem-solving, software design, coding effectiveness, the software development life cycle, and web technologies.

Digital Egypt Pioneers Initiative Microsoft Machine Learning   **April 2024 – Present**
- The program covered a lot of courses including Statistics and Linear Algebra Basics, Data Science with Python, Machine Learning, Introduction to Agile Development and Scrum, Azure AI Fundamentals, Azure AI Engineer Associate, MLOps Tools, MLflow and Hugging Face, Build Basic GANs, NLP with Attention Models and Prompt Engineering.

Initium Solutions   **July 2022 – August 2022**
.NET Full Stack Software Engineer Intern   *Cairo, Egypt*
- Gained hands-on experience in front-end development (HTML, CSS, JavaScript), built robust server-side applications (C# and ASP.NET Core), mastered SQL Server for databases, and actively contributed to real-world projects.

Projects

Graduation Project (sponsored by Ejad) / *Python, Computer Vision, Jetson TX2*   **June 2024**
- Created AI-powered glasses to assist visually impaired individuals in their daily activities, using real-time computer vision and voice commands for guidance. Deployed the models on Jetson TX2 for efficient edge computing using ONNX and TensorRT.
- Conducted data preprocessing and augmentation to enhance model training.
- Implemented face recognition using Principal Component Analysis (PCA) to identify individuals.
- Created object and face detection systems for real-time environment interpretation.
- Engineered a feature for counting stairs steps using image processing techniques.

COVID-19 Outcome Prediction / *Python, Pandas, NumPy, Matplotlib*   **December 2023**
- Developed a predictive model to classify COVID-19 outcomes as 'Recovered' or 'Death' based on patient data.
- Identified key features using exploratory data analysis, cleaned and preprocessed the data to prepare it for modeling.
- Evaluated multiple machine learning algorithms including KNN, Logistic Regression, Naive Bayes, Decision Trees, and SVM.
- Fine-tuned models using GridSearchCV and StratifiedKFold cross-validation to handle class imbalance.

NASA Mars Sample & Return Rover / *Python, OpenCV*   **March 2022**
- Developed a simulated Mars Sample & Return Rover utilizing computer vision and image processing techniques for autonomous mapping and navigation.
- Programmed the rover to interpret visual data for autonomous decision-making.

Technical Skills

Languages: Python, C, C++, Embedded C, C#, HTML/CSS, JavaScript, SQL
**Data Science, Machine Learning, Deep Learning, NLP, Computer Vision,
Prompt Engineering, Microsoft Azure AI Services, Linux, GitHub, LangChain**

Achievements

- African Basketball Championship u16 Runner-Up.
- Arab Basketball Championship u18 Winner.
- African Basketball Championship u18 Third Place.