Abdelrahman Amin Saad

Machine Learning Engineer

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Kaggle

PROFILE

As a graduate in Computer Science with a specialization in Artificial Intelligence, I have developed a robust foundation in machine learning, deep learning, large language models (LLMs), and data science through academic coursework and hands-on projects. My journey in AI has been fueled by a passion for solving real-world problems, which is reflected in the diverse and impactful projects I have developed and showcased on my GitHub. These projects have not only refined my technical expertise but also enhanced my ability to collaborate effectively, prioritize tasks efficiently, and approach complex challenges with innovative solutions.

EDUCATION

Bachelor of Computer Science 2020 – 2024
Cairo University
(Artificial Intelligence Department)
GPA: 3.3
Graduation Project: A+

SKILLS

Programming Languages:

- Python (SciKit-Learn, NLTK, TensorFlow, PyTorch, FastAPI Beautiful Soup, Django, Gensim,Transformers, Keras, OpenCV, Swagger, Flask, LangChain, Streamlit, NumPy, Pandas, Matplotlib, Seaborn)
- **C++ • Java • SQL**

Development Tools:

- **Git/GitHub • Docker • Kubernetes • CI/CD Pipelines**

ORGANIZATIONS

IEEE Cairo University Student Branch **02/2024 – 10/2024**

Machine Learning Member

GDSC Cairo University **10/2023 – 7/2024**

Machine Learning Member

CONCEPTS

- Machine Learning
- Deep Learning
- OOP
- Image Preprocessing
- Transfer Learning
- Natural Language Processing (NLP)
- Data Augmentation
- Web Scraping
- Reinforcement Learning
- Fine Tuning
- Hyperparameter Tuning
- Cloud Computing
- Generative Models (GANs)
- Retrieval-Augmented Generation (RAG)
- Multi-Agent Systems

CERTIFICATES

- Machine Learning Specialization (Coursera)
- Advanced Learning Algorithms (Coursera)
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization (Coursera)
- Sequence Models (Coursera)
- Large Language Models (LLMs) Concepts (DataCamp)
- Deep Learning Specialization (Coursera)
- Unsupervised Learning, Recommenders, Reinforcement Learning (Coursera)
- Structuring Machine Learning Projects (Coursera)
- Foundations of Data Science (Coursera)
- Data Science Mathematics (Great Learning)
- Supervised Machine Learning: Regression and Classification (Coursera)
- Neural Networks and Deep Learning (Coursera)
- Convolutional Neural Networks (Coursera)
- Generative AI with Large Language Models (Coursera)
- Linear Algebra (Mind Luster)

PROJECTS

Hexapod Robot **Oct 2023 – Dec 2023**

- Designed and built a hexapod robot from scratch, showcasing expertise in robotics, electronics, and programming. Developed control algorithms for autonomous movement and navigation, integrated sensors for obstacle detection, and optimized performance through iterative testing. Presented project outcomes to peers, demonstrating technical proficiency and innovation in robotics.

Car Plate Detection using YOLOv8 **Jul 2023 – Jul 2023**

- Implemented car plate detection system using YOLOv8, a state-of-the-art object detection algorithm, for accurate and real-time detection of license plates in images.
- Utilized YOLOv8 architecture for its high accuracy, speed, and ability to detect objects of various sizes, including small license plates within complex backgrounds.

Text Generation for Arabic and English using RNN **Sep 2024 – Sep 2024**

- Developed a text generation model using an RNN-based architecture to predict the next word in a sequence for both English and Arabic languages, trained on Wikipedia content.

Sentiment Analysis using (LSTM &GRU) **Jun 2024 – Jun 2024**

- This project aims to perform sentiment analysis on the IMDB movie reviews dataset.

Applicant Tracking System ATS using LLM **Nov 2024 – Nov 2024**

- Created an AI-powered ATS using Google Generative AI to analyze resumes and match them with job descriptions.
- Enhanced recruitment with detailed evaluations and compatibility scores through context-aware assessments.

Video Transcribe Summarizer using LLM **Oct 2024 – Oct 2024**

- This project uses LLMs and AI to transform YouTube transcripts into concise, detailed notes. Simply input a video link to quickly grasp key points without watching the entire video.

RAG Agent **Dec 2024 – Dec 2024**

- This project uses LangChain agents and Google Generative AI to build a RAG system, combining LLMs with tools like Wikipedia, Arxiv, and custom retrievers for accurate, real-time answers.

Active Learning with different Query Strategies **Mar 2024 – April 2024**

- Implemented active learning to optimize data selection, reducing labeling needs while enhancing model performance.

LANGUAGES

- English: Full Professional Proficiency
- Arabic: Native