Ahmed Mohamed Abdelrasoul

Student

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Profile

Driven Computer Science student with a passion for Artificial Intelligence, specializing in machine learning, data analytics, and natural language processing. Eager to contribute to impactful Al projects and real-world solutions, while advancing the field through innovation and collaboration. Committed to turning complex challenges into intelligent systems alongside industry leaders and researchers.

Education

Bachelor of Computer Science, *October University for Modern Sciences and Arts*

Bachelor of Computer Science, *University of Greenwich*

Certificates

Artificial Intelligence Ambassadors Program
Engineers For Sustainable Egypt and NTI

Machine Learning & Deep Learning
Zewail City of Science and Technology

Project Management
The British University in Egypt

Master AI and ML diploma
AMIT

Deep Learning for computer vision
Udemy

Cyber Security
The British University in Egypt

Artificial Intelligence
The British University in Egypt

Neural Networks and Deep Learning
Coursera

Introduction to network security
Maharatech

Projects

AI-Powered Interactive Systems
Designed AI-based tools that combine computer vision and algorithmic visualization:
- Emotion Detection System: Real-time facial emotion classification for mental health and user engagement scenarios.
- PathFinder Pro: Interactive visualization of search algorithms (A*, BFS, DFS, Greedy) in dynamic environments.

Assembly to Machine Code Converter
Built a converter that translates assembly instructions into machine code by parsing operands and encoding them based on processor architecture.

Face Recognition System
Technologies: Python, PyTorch, FaceNet, OpenCV, Streamlit, GitHub ActionsImplemented a real-time face recognition system using FaceNet embeddings. Provided both desktop and web interfaces, batch processing capabilities, CI/CD integration, and detailed documentation for deployment and contribution.

Game Development Projects (C++ / C#)
Successfully developed multiple interactive games focusing on gameplay mechanics, user interface, and real-time interaction. Projects include:
- A 2D platformer
- A drag-and-drop Tower of Hanoi
- A mobile 2048 variant with custom visuals/audio
- A train simulation with real-time controls and scrolling

Network Packet Analyzer with ML Classification
Technologies: Python, PyShark, scikit-learn, Tkinter, matplotlibBuilt a real-time network traffic analyzer supporting over 10 protocols with live visualization and machine learning-based traffic classification. Designed for anomaly detection and security analysis with a custom desktop GUI.

Online Clothing Store
Designed a functional e-commerce website using HTML, CSS, JS, and PHP, integrated with a MySQL database for managing products, users, and orders.

Web Scraping & Analysis Toolkit
Technologies: Python, Streamlit, Selenium, Playwright, BeautifulSoup, Pandas, Plotly
Developed a modular web scraping system with support for dynamic content, robots.txt analysis, sitemap parsing, and RSS feed extraction. Integrated a user-friendly dashboard and real-time visualization tools. Emphasized ethical scraping practices and scalability.

Skills

Programming Languages
- Python, C++, C#, JavaScript, PHP

Machine Learning & AI
- PyTorch, scikit-learn, TensorFlow, Orange, FaceNet, OpenCV
- Techniques: Neural Networks, Face Recognition, Pathfinding Algorithms, Traffic Classification

Web Scraping & Automation
- Selenium, Playwright, BeautifulSoup, RSS Parsing, robots.txt/sitemap analysis

Databases
- MySQL

Project & Team Management
- Agile workflow, Team Collaboration, Task Prioritization, Communication

Web & App Development
- HTML, CSS, Streamlit, Tkinter

Natural Language Processing
- NLTK, spaCy

Data Analysis & Visualization
- Pandas, Plotly, matplotlib, Power BI, Excel

Cybersecurity & Networking
- PyShark, Network Protocols (TCP, UDP, HTTP, DNS), Intrusion Detection

Workflow & Collaboration
- Git, Jira, Agile, GitHub