ABDELRAHMAN HANY

Computer & Systems Engineer

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EDUCATION

B.S. in Computer & Systems Engineering 📅 2021 - 2026
Ain Shams University - GPA: 3.5

- Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Architecture, Software Engineering, Database Systems.

EXPERIENCE

Freelance Developer 🔗 📅 Oct 2021 – Ongoing
Fiverr & Upwork

- Worked on 100+ projects using Google Apps Script to automate G Suite workflow and integrate different G Suite apps.

PROJECTS

Cartnest E-commerce Platform 🔗 📅 May 2025
Full-stack e-commerce site (Team Project)

- Co-designed **database schema** and implemented **ORM classes**.
- Improved performance and scalability via **data fragmentation and sharding**.

CHRONOS CPU Scheduler 🔗 📅 Apr 2025
Python desktop app for visualizing CPU scheduling (Team Project)

- Built desktop app with **FCFS, threading, and signal-driven** step simulation.
- Added real-time **Gantt chart** and process control for **4 schedulers**.

NodeScope - Social Network Analyzer 🔗 📅 Nov-Dec 2024
XML Editor and Graph Visualizer using Python (Team Project)

- Built an XML syntax error-correction system, achieved **90+%** test coverage.
- Created an extraction function for the most connected node in the Network.

GPS Tracking System 🔗 📅 May 2024
Live Tracking using Tiva C Microcontroller (Team Project)

- Architected MCU-Server communication API with GUI interface, and an EEPROM driver supporting **500+** coordinate storage.

EXTRACURRICULAR ACTIVITIES

Computer Vision Engineer, ASU ROAR 🔗 📅 2025 - Present
Competitor, European Rover Challenge (ERC)

- Develop real-time obstacle and sample detection modules using **C++, Python, OpenCV, and ROS 1**, enabling autonomous rover navigation.
- Designed grasp planning algorithms to optimize robotic arm sample retrieval.

Workshop Instructor, Computer Networks 📅 2023 - 2024
Student-led Technical Series

- Led hands-on technical workshop for **40+ engineering students** covering networking fundamentals.
- Created lab materials on **TCP/IP, subnetting, Wireshark packet analysis, and Cisco Packet Tracer simulation**.

TECHNICAL SKILLS

Languages: C++, Python, Java, JavaScript (JS), Google Apps Script (GAS), Verilog, SQL

Frameworks/Libraries: React, Flask, FastAPI

Databases: PostgreSQL, SQLite

Tools: Git, Packet Tracer, VS Code, Jupyter

Operating Systems: Windows, Linux (Ubuntu)

CERTIFICATIONS

MIT 6.431x: Probability 🔗 2024
MIT 6.86x: Machine Learning 🔗 2024
Cisco CCNA 🔗 2023
Harvard CS50 🔗 2022

LANGUAGES

Arabic Native
English Fluent
German Basic

AWARDS & HONORS

2nd Place, ASU AI Engineering Hackathon 🔗 2024
Developed a QA AI-powered proof-of-concept for an Ain Shams Competition.

Climate Data Dashboard & Chatbot (NASA Space Apps) 🔗 2024
Built an interactive dashboard with a chatbot to visualize 20-year environmental change patterns.

ECPC '23 — Participant 🔗 2023
Competed in the Egyptian Collegiate Programming Contest.

Nokia Digital Design Hackathon — Accepted 2025
Selected to participate in a competitive digital design hackathon.

VOLUNTEERING

GDG Cairo Volunteer 🔗 2023
Assisted with event logistics, attendee guidance, and technical session support at the GDG Cairo developer conference.