

Omar Aboushadi

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Education

Dubai English Speaking College

Dubai, UAE

A Levels: Mathematics, Physics, Chemistry.

2024-Present

GCSEs: (Achieved 9s and 8s across 12 GCSE subjects, including 9 in Mathematics)

2023-2024

Courses

Columbia University Pre-College Program – Astrophysics

July 2024

- Learned astronomy's ancient roots to the modern study of extrasolar planetary systems, cosmology, and black holes

University of Oxford - Engineering

Jun 2023

- Learned the core principles of engineering and applied them to challenges in areas like sustainable energy, materials science, and structural design.

Awards and Honors

- UK Mathematics Trust:** Gold and Silver across Intermediate and Senior categories 2020-2024
- British Physics Olympiad** – Silver award
- Boeing Bottle Rocket Competition** - Winner, Emirates Aviation University
- Duke of Edinburgh's International Bronze and Silver Award:** Completed a series of service, physical, skill, and expedition/orienteering exercises in this British awards program. 2023
- Dubai Science Fair** – Best Prototype Award 2025

Project Experience

Founder of Health Hub

July 2023 - Present

Established Health Hub, an online platform ranking healthcare systems by accessibility and effectiveness.

- Designed digital solutions to promote health equity and presented research at COP28

Researcher, Dubai Science Fair

Sept 2024 - June 2025

Smart IoT-Based Greenhouse Monitoring System

- Engineered an Arduino-powered greenhouse integrating sensors, fans, and a water pump to regulate temperature, humidity, and soil moisture.
- Utilized IoT platforms such as Blynk and ThingSpeak for real-time monitoring, remote control, and data insights, winning the Best Prototype Award.

Student Researcher

July 2025 - Present

Disaster Recovery Rover

- Developed a robotic platform to support search and rescue operations in hazardous terrain.
- Integrated multiple sensors with affordable and mobile hardware to provide a scalable disaster-response solution aimed at reducing risks to human life and accelerating recovery efforts.

Student Intern, Sidara - London

Dec 2024

- Researched applications of artificial intelligence and machine learning in sustainable design..
- Collaborated with engineers and planners, developing skills in **data analysis, spatial modelling, and sustainable urban design.**

Extracurricular and Leadership Activities

- Co-Founder & Director of Engineering, Aviation & Aerospace Society:** Led projects on model aircraft, drones, and flight simulations; mentored peers in aeronautics and engineering principles
- Inspirit AI Scholar – Astrophysics & AI Research:** Conducted research under Stanford and Harvard mentors, applying machine learning to exoplanet detection and astrophysical datasets.
- LabX Research Intern, Sidara:** Contributed to urban planning research using GIS and Random Forest models for Land Suitability Analysis.
- Member, Senior Mathematics Society:** Engaged in advanced problem-solving, fostering mathematical precision and critical reasoning.
- Varsity Basketball Team:** Served as starting shooting guard, representing the school in national-level competitions and demonstrating teamwork, resilience, and leadership.
- Member, Physics & Engineering Society:** Participated in projects and debates on applied physics and engineering innovations.
- Math Tutor, DESC:** Delivered individual and group sessions, strengthening peers' understanding of GCSE and A Level concepts while enhancing communication and mentoring skills.

Community Service:

- **Volunteer, Al Farouk Mosque** – Assisted in organizing community service initiatives and events, raising USD 10,000 for humanitarian causes through local fundraising campaigns.

Technical Skills

- **Back-end Development Tools:** Python, Java, PHP
- **Front-end Development Tools:** HTML5, CSS3
- **Microsoft Office Suite:** Excel, Word, PowerPoint