

YOSEF AMR

MECHATRONICS ENGINEERING STUDENT | SOFTWARE & INTELLIGENT SYSTEMS

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PROFILE

First-year mechatronics student at UOWD with hands-on experience in EV telemetry, reinforcement learning and full-stack development. A2RL High School League winner and lead developer of a first-place hackathon project. Seeking internships and practical engineering opportunities in software, robotics and automation.

EDUCATION

University of Wollongong in Dubai

Sep 2026 - Present

Bachelor of Engineering (Honours), Mechatronics Engineering | First year

ENGINEERING EXPERIENCE & SELECTED PROJECTS

Electric Vehicle Grand Prix | Team Lead & Telemetry Developer

2023 - 2026

- Led the school EV team in Grades 11-12, coordinating mechanical, electrical and software work, vehicle testing and race strategy; contributed to the car build from Grade 10.
- Built race-used telemetry from ESP32 sensors and LoRa wireless communication to a Python/Flask backend and live JavaScript dashboard; supported a top-10 team finish in Grade 11.
- Added physics-based power estimates, battery-runtime and remaining-lap predictions, and driver-consistency analytics. Team awards: **1st in Workmanship** and **3rd in Technical Innovation** in Grade 10.

AWS DeepRacer / A2RL | Sole Model Developer

Oct - Nov 2025

- Designed reward functions and tuned reinforcement-learning models through iterative training and evaluation; ranked **1st in UAE, 22nd in MENA and 330th globally** in the virtual competition.
- Won **1st place in the A2RL High School League** at the live finals, with an **8.133-second three-lap average**.

SentinelOS | Sole Developer, Hackathon Team

Jun 2026

- Designed, implemented and deployed the web application for a four-person team, earning **1st place at the Abu Dhabi University Hackathon**.
- Built a safety-focused prototype around route assessment, emergency assistance and personal readiness using React, TypeScript, Node.js and SQLite, with maps and AI integrations.

GoKnowing | Creator & Developer

Ongoing

- Built a travel-planning platform combining destination busyness, weather and route information, with best-time-to-go insights and an AI day planner. Website: goknowing.app.
- Expanded the project into a Flutter/Mapbox mobile beta with navigation and contextual destination insights.

Computer Vision & Healthcare Prototypes

In development

- VAR/offside analysis: developing a Python/PySide6 tool using YOLO, ByteTrack and pitch homography to track players and visualize offside lines.
- DoseIQ: developing a medication-management concept combining schedules, dose tracking and identity-aware verification with Python, OpenCV, InsightFace and SQLite.

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, SQL, HTML/CSS

Web & mobile: Flask, React, Node.js, Flutter, REST APIs, MySQL, SQLite

AI & data: Reinforcement learning, scikit-learn, Pandas, NumPy, OpenCV, YOLO

Hardware & engineering: ESP32, LoRa, sensor integration, EV telemetry, physics-based modelling