

Mohammad Khalifah

AI & Robotics Engineer | ROS2 Specialist | Technical Trainer

✉mohammadkhalefa04@gmail.com ☎+962 781 324 923 📍 Amman, Jordan

CONTACT

✉ mohammadkhalefa04@gmail.com
☎ +962 781 324 923
📍 Amman, Jordan
🔗 [Mohammad Khalifah](#)
🔗 [Mohammad-Khalifah1](#)
🔗 [Mohammad-k-cyber](#)

EDUCATION

B.Sc. Mechatronics Engineering
Al-Balqa Applied University
Graduated: 2024

TECHNICAL SKILLS

Core Stack
ROS1 · ROS2 · MoveIt2 · Python · C++ · OpenCV · YOLO · Machine Learning

Hardware
Jetson Nano · ESP32 · Arduino · Industrial Manipulators · 3D Cameras

Tools & OS
Linux · Git · Docker · REST API · ROS2 Actions/Services · SolidWorks · AutoCAD

Soft Skills
Project Management · Entrepreneurship · Technical Training

LANGUAGES

Arabic Native
English C1 — Professional

CERTIFICATIONS

- ROS & Manipulator Robotics — Udemy
- Python for Robotics — The Construct
- C++ for Robotics — The Construct
- Python AI / Machine Learning — Hope Intl
- SolidWorks — IEEE RAS
- 3D Printing — IEEE RAS / Wasleh
- Arduino — Edrak
- Entrepreneurship Bootcamp — QRCE 2023
- Project Management — Edrak

PROFILE SUMMARY

Mechatronics Engineer with hands-on expertise in ROS2, AI, and industrial robotics — delivering production-ready robotic systems and computer vision solutions for manufacturing and Industry 4.0. Also experienced in designing and delivering technical training for Jordanian industrial chambers and universities.

EXPERIENCE

AI & Robotics Solutions Engineer Cyber Robot — Amman, Jordan

Jul 2024 – Present

- Design and deploy end-to-end AI solutions for industrial automation aligned with Industry 4.0 standards.
- Develop robotic arm control systems using ROS2 and MoveIt2 with integrated 3D computer vision.
- Build real-time object detection and classification pipelines using YOLO and OpenCV on Jetson Nano.
- Design custom AI solutions for production optimization, predictive maintenance, and smart quality control.
- Program and deploy robotic hardware (ESP32, Arduino, industrial manipulators) for automated workflows.
- Design and deliver hands-on ROS2, Robotics & AI workshops for Jordanian industrial chambers and universities.
- Develop structured training curriculum covering ROS2, MoveIt2, YOLO-based vision, and AI for industry professionals and engineering students.

Key Projects at Cyber Robot:

- Drawing Robot — ROS2 arm translating digital images into precise drawing paths via MoveIt2.
- Welding Robot — Automated seam welding with real-time CV detection using ROS2 + MoveIt2.
- Inspection / Photography Robot — Automated visual inspection with YOLO defect detection pipeline.
- Palletizing Robot — ROS2 + MoveIt2 palletizing solution for structured industrial packaging.
- Pick and Place Robot — CV-guided pick & place using 3D camera depth data and ROS2.
- XO Game Robot — Interactive tic-tac-toe robot with AI decision-making and CV board detection.

Production Engineer Intern

Al Saad Hygienic Paper Co · During B.Sc. Studies

Jan 2024 – May 2024

- Trained in the fundamentals of PLC programming and classic control on production-line machinery at a hygienic paper plant.
- Gained on-site exposure to industrial production processes and basic electrical control circuits.

CORE COMPETENCIES

Industrial Robotic Arm Programming	AI Solutions Design & Deployment
ROS2 / MoveIt2 Development	Robotics & AI Technical Training
Computer Vision (YOLO, OpenCV)	Autonomous Mobile Robots (AMR)
Kinematics & Dynamics Calculation	Industry 4.0 Smart Automation

- PV Solar Course — Arkan Company
- Supply Chain Management — Muhakat
- Presentation Skills — Oxford Home Study

GRADUATION PROJECT

Mars Rover — *Al-Balqa Applied University, 2024*

- Designed and built a fully autonomous Mars Rover prototype using ROS2 as the core middleware for navigation, perception, and control.
- Implemented autonomous navigation using ROS2 for real-time path planning and obstacle avoidance on unstructured terrain.
- Integrated computer vision for environment perception and object detection using OpenCV and YOLO on embedded hardware.
- Developed custom ROS2 nodes for motor control, sensor fusion (IMU, LiDAR), and real-time telemetry communication.
- Designed mechanical structure in SolidWorks with 3D-printed components; full system tested in simulated planetary terrain.

VOLUNTEERING

Membership Development Lead (MD)

IEEE BAU RAS · During B.Sc. Studies

Jun 2023 – Oct 2024

- Led a team to organize robotics and AI workshops for university students and the broader tech community.
- Coordinated technical training sessions and fostered engineering community engagement.
- Contributed to chapter growth, outreach programs, and robotics education initiatives.