Mohammad H. Malkawi

Computer Networks & Cybersecurity Student

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Third-year Computer Networks and Cybersecurity student at Jadara University. I design systems that bring AI into physical infrastructure, and I lead student engineering programs as Vice Chair of IEEE Jadara Student Branch. Looking for internships in networking and security, remote or in Jordan.

PROJECTS

SALKA, Adaptive Traffic Control

Self-initiated

System design & research, team SYNTRA. Python, SUMO, TraCI, OpenStreetMap

- Designed a digital twin of Culture Circle in Irbid, built from OpenStreetMap data and simulated in SUMO.
- Adaptive signal control in Python over TraCI, reading queues, waiting times and occupancy, with priority for emergency vehicles.
- Reduced average vehicle waiting time by up to 15% in simulation.

C-Layer, CO_2 Sorbent Test Rig

Lab rig design

Sole designer. Raspberry Pi, NDIR CO_2 sensing, PID control, SHA-256 hash chain, ECDSA P-256

- Designed a bench-top rig that measures how CO_2-capture materials hold up in cement-kiln flue gas: 15% CO_2, 2% humidity, 8-12 minute breakthrough runs on a 2.5 g cartridge.
- Specified a six-stage test cycle with valve-switched inlet referencing, blank runs and repeats to report capacity with its error.
- Designed a tamper-evident data layer: hash-chained records signed by a secure-element key and externally timestamped (RFC 3161).

After Effects MCP Pro

Open source, MIT

Idea, design & testing. MCP, Node.js, ExtendScript, CEP

- Directed an MCP server that lets Claude build, review and render motion graphics inside Adobe After Effects, with 14 tools and 53 automated checks.
- Required a token-authenticated localhost bridge, checkpoints with revert, a read-only mode and per-call logging.

LEADERSHIP

Vice Chair, IEEE Jadara Student Branch

Present

Chair, IEEE Robotics & Automation Society, Jadara

2025-2026

- Led a 7-person team through about 30 workshops and events.
- Organized RoboCraft on 6 January 2026, a national robotics competition on smart solutions.
- Awarded the IEEE RAS Chapter Initiative Grant in 2026 for RoboCraft. Partners included Jadara Education and IEEE Jordan Section.

110	~300	16
teams registered	participants	universities

EDUCATION

B.Sc. Computer Networks & Cybersecurity

Jadara University, Irbid

Expected January 2028

SKILLS

Networking & Security
Cisco networking, Wireshark, Kali Linux, Linux, Bash

Programming
Python, C++, JavaScript, TypeScript

Systems & AI
SUMO, TraCI, LSTM models, NVIDIA Jetson, Raspberry Pi, Arduino, MCP

Tooling
Git, GitHub, Docker, Node.js, Vite, OpenStreetMap data

LANGUAGES

Arabic
Native

English
Professional