

TAREK OKASHA

+20 113 170 1911 | tarekokasha53@gmail.com | [Portfolio](#) | [GitHub](#) | [LinkedIn](#)

EDUCATION

German International University (GIU)

Expected Jun 2027

B.Sc. Mechanical Engineering, Robotics & Automation · GPA: 2.1 (German Scale)

- Full Merit Scholarship Recipient; National Ranking #488 of ~700,000 nationwide (Top 0.1%).

TECHNICAL SKILLS

Robotics & Controls: ROS2, MoveIt2, RViz, Motion Planning, Path Planning, Kinematics, PID Control, Computer Vision, NVIDIA Omniverse, Isaac Sim

Programming: Python, C++, JavaScript, TypeScript, SQL, Bash, MATLAB

AI & Software Engineering: OpenAI API, Claude API, RAG, MCP, Agentic AI Systems, LLM Orchestration, OpenCV, Node.js, Express.js, React, REST APIs, MySQL, Multi-Tenant Systems

CAD & Mechanical Design: SolidWorks, Autodesk Fusion 360, AutoCAD

Project Management: Technical Team Leadership, Agile, Scrum, Kanban, Jira

Languages: Arabic (Native), English (C2), German (B1)

PROFESSIONAL EXPERIENCE

Sportix

Jan 2026 – Jul 2026

Lead Software Engineer · Remote, UAE

- Led end-to-end development of a production medical platform spanning 7 integrated modules, architecting the full stack (React, Node.js, Express.js, MySQL) with role-based access control and full Arabic RTL support for MENA deployment.
- Integrated an AI-powered reporting feature using the Claude API, generating automated clinical insights from injury, vitals, and rehabilitation data to support medical-staff decision-making.

Al-Helaly Constructions

Sep 2025 – Dec 2025

ERP Systems Developer · Egypt & Gulf Region, Contract

- Developed a multi-tenant ERP platform covering projects, inventory, payroll, procurement, machinery, vendors, and reporting, live across two countries with isolated tenant data and multi-currency support (EGP/USD).
- Implemented role-based access control, audit logging, and a bilingual Arabic/English interface, replacing fragmented spreadsheets with one source of truth.

Shae Group

May 2025 – Sep 2025

Automation Developer · United States, Remote

- Designed and implemented automation workflows across CRM, email, SMS, scheduling, and payments, integrating systems via APIs, webhooks, Python, and JavaScript.
- Reduced manual operational workload by more than 60% and improved lead-response times from hours to minutes through workflow automation.

ENGINEERING PROJECTS

Voice-Controlled 6-DOF Robotic Arm (Team Lead, 3 Engineers)

Feb 2026 – Jun 2026

ROS2 · MoveIt2 · RViz · Claude API · Amazon Alexa · AWS Lambda · Raspberry Pi 5

- Led a 3-engineer team designing and integrating a voice-controlled 6-DOF robotic arm, architecting a real-time voice-to-motion pipeline: Alexa to AWS Lambda to Claude API to ROS2/MoveIt2.
- Developed URDF models and implemented inverse kinematics for precise end-effector positioning, validated in RViz and ROS2 simulation.

PLC-Controlled Bottle Filling & Sorting Station

Sep 2025 – Dec 2025

Ladder Logic (IEC 61131-3) · HMI Design · SCADA

- Designed and programmed ladder-logic automation workflows for filling and sorting operations, integrating sensors, actuators, conveyors, and e-stop safety interlocks.
- Built HMI interfaces for monitoring, diagnostics, and manual process control, modeled on Siemens workflows.

AWARDS & LEADERSHIP

- Full Merit Scholarship Recipient at German International University (GIU).
- National Ranking #488 of ~700,000 students nationwide (Top 0.1%) — ranked #1 in graduating high-school class.
- Experienced leading software-engineering projects end-to-end, from architecture through deployment.