

Awaiz Ahmed

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Summary

Software engineer, researcher, and multidisciplinary builder working across applied AI, robotics, defence, automation, digital transformation, and product development. I focus on taking complex, high-impact problems from ambiguity to working systems combining emerging technology, engineering discipline, and practical execution to build solutions that are useful beyond the demo. My experience spans industry, defence, academia, research, and competitive innovation, and I am drawn to environments where the constraints are real, the problems are difficult, and the work demands learning fast, thinking across disciplines, and building end-to-end.

Skills

- **AI / Agentic Systems** – LLM Agents, MCP, RAG, Prompt Engineering, NLP, Computer Vision, scikit-learn
- **Robotics / Edge AI** – ROS 2, OpenCV, YOLO, Unitree SDK, Boston Dynamics Spot SDK, Arduino / Edge Devices, PLC Programming, Node-RED, Industrial/IoT Automation
- **Data & Analytics** – Pandas, NumPy, Matplotlib, Power BI, BigQuery
- **Frameworks / Web / Backend** – FastAPI, Flask, Firebase, Node.js, React, Next.js, Three.js, R3F
- **Cloud & DevOps Tools** – Azure, AWS, Cloudflare, Docker, Kubernetes, CI/CD (GitHub Actions), Git
- **Programming Languages** – Python, Java, C, C++, C#, JavaScript, TypeScript, SQL, Bash, Lua

Experience

Software Developer & AI Engineer, **EDGE Group**

Nov 2025 – Present

- Engineered **Industry 5.0** software and applied-AI solutions across the BRIDGE ecosystem, focusing on intelligent automation, robotics, and emerging-technology initiatives.
- Developed **digital work instructions for drone assembly and build training**, translating complex engineering processes into structured, step-by-step operator guidance and reusable technical content.
- Prototyped robotic inspection workflows using Boston Dynamics Spot, computer vision, FPV video, and VR teleoperation to enable safe, remote post-test situational awareness.
- Built **internal applications and workflow tools**, including an OKR dashboard and lightweight operational systems for tracking objectives, initiatives, progress, and decision-making across teams.
- Authored technical content and use cases spanning AI, XR, and human-centric automation to accelerate training, capability building, and product demonstrations.

Intelligent Systems & Automation Trainee, **EDGE LIF**

Aug 2025 – Nov 2025

- Worked on Industry 4.0 intelligent systems and automation projects using Python and ROS.
- Developed and implemented software applications, supported system integration, and contributed to the Automated Storage and Retrieval System PoC, showcased in Make it in the Emirates 2026.
- Integrated AI model outputs with ASRS, conveyor, and robotic systems, developing core PLC logic, safety interlocks, and user-friendly operator HMIs.

Global AI Delegate, **Global Alliance for Artificial Intelligence**

Jun 2026 – Present

- Represent AI in the UAE by advancing responsible, human-centred AI across govt, industry, academia, and society, while supporting collaboration, capacity-building, resilience, OpEx, and standards-aligned innovation.

Organiser, [Google Developer Groups Abu Dhabi](#)

Aug 2026 – Present

- Support developer community engagement, technical learning initiatives, and knowledge-sharing activities across AI, software engineering, and emerging technologies in Abu Dhabi.

Ambassador, [Takumi Platform](#)

Jul 2026 – Present

- Represent the platform across the UAE tech and student community, supporting outreach, onboarding, and awareness initiatives while relaying user feedback to the core team.

AI & ML Engineer Trainee, [Samsung Innovation Campus](#)

Jul 2025 – Oct 2025

- Selected from a competitive pool of **120 students** across the UAE for a structured AI Engineering program designed for software professionals.
- Built, trained, and evaluated machine learning and deep learning models on real-world datasets.

UI/UX Designer Intern, [Pawar Technology Services](#)

Nov 2024 – Jan 2025

- Specialised in UI/UX and graphic design, creating brand-aligned visuals, digital assets, and engaging content to enhance user experience and online presence.
- Designed and delivered product-ready UI flows and interactive prototypes in Figma for web and mobile experiences.

Intern, [Department of Culture and Tourism – Abu Dhabi \(DCT\)](#)

Sep 2024 – Nov 2024

- Completed a technology-track internship, applying AI and analytical skills to departmental technology initiatives.

Intern, [TAQA Distribution Company](#)

Jul 2023 – Aug 2023

- Participated in a 10-day immersive internship programme run by Abu Dhabi Distribution Company, gaining exposure to diverse technical and professional development activities.
- Strengthened problem-solving, technical communication, systems thinking, and collaborative project work in an engineering-focused environment.

IIFA Industry Management, [twofour54 Abu Dhabi](#)

Jun 2022 – Jul 2022

- Contracted to support industry management at the **IIFA Awards**, gaining comprehensive exposure to large-scale event operations and behind-the-scenes coordination.
- Volunteered at Etihad Arena, Yas Island, developing event coordination, crowd management, and teamwork skills in fast-paced environments.

[Research Experience](#)

Undergraduate Researcher, Al Ain University

2026

Supervisor: Dr. Khubaib Alam

- Researched **explainable AI** methods for requirement validation in software requirements specifications.
- Built a pipeline to extract and analyze **requirement-like statements** from heterogeneous SRS documents.
- Explored detection of **ambiguity**, **incompleteness**, and **non-testability** using human-in-the-loop explainable review workflows.

[Publications](#)

[Keeping Engineers in the Loop: Explainable Requirement Defect Screening Across Software Requirements Specs](#)

IEEE REW 2026

Published in the *IEEE 34th International (REW) in Canada*. The work studies explainable requirement-defect screening across software requirements specifications while keeping engineers directly involved in the review loop.

Projects

XPBridge – Micro-Project Platform (UAE)

[Google Play Store App](#)

Built a UAE micro-project platform using AI-driven advising and matching to connect students with startups.

JARVIS – AI Quality Control Station

[Demo Video](#)

Computer-vision quality control station for the SLF: inspects cars, detects missing parts, generates pass/fail results, answers voice questions, and displays a live checklist – running entirely locally on **Falcon 3** (TII).

REPEAT – Behavior-to-Agent Workflow Learning

[GitHub](#) | [Demo Video](#)

Built an AI agent system that learns repetitive workflows by observing semantic actions across tools, detects recurring patterns, generalizes variables and rules, and generates an approval-gated automation agent rather than a coordinate-based macro.

VariantPulse – Genomic Change Intelligence

[Live Project](#)

Built a genomic intelligence platform that detects variant reclassifications, finds affected patient records, and summarizes evolving evidence for clinician review.

Rafeeq – Autonomous Library Robot

[GitHub](#)

Developed a ROS 2 autonomous library-robot pipeline for book identification, 3D localization, grasp planning, navigation, extraction, and delivery in simulation, with a long-term focus on improving accessibility for PoD.

Competitions

UnderGrid – The City That Fixes Itself First

[1st Place](#), *Alibaba AI Everything Hackathon*

Built Abu Dhabi's 3D digital twin that predicts and plans underground infrastructure before emergencies occur.

AeroHalo – AI-Powered Airside Safety System

[1st Place](#), *INSPIRE '26 – AUS*

Built an edge-AI airside safety prototype using computer vision, real-time sensors and contextual risk analysis.

BeBTR – AI-Powered Fitness System

[1st Place](#), *Smart Health Hackathon (DoH)*

Developed a real-time posture correction and adaptive training system using computer vision and wearable data.

UAE Game Makers Competition

[1st Place](#), *Space 42*

Won Best Overall Game for developing *Falcon's Odyssey*, built in Unity with C# and Python.

Heritage Innovation Hackathon

[1st Place](#), *Sandoog Al Watan (AAU)*

Designed an interactive concept reimagining Emirati heritage games while preserving cultural authenticity.

SooqRoot – Farm-to-Market Platform

[2nd Place](#), *Farm Hackathon (MOCCAE)*

Built an AI-assisted platform to coordinate advance produce orders across multiple UAE farms.

FalconPatrol AI – Robotics Surveillance

[2nd Place](#), *NextGen Challenge*

Developed a Spot robot surveillance prototype using OpenCV and FastAPI for low-latency, real-time alerts.

A30 – Cyber-Resilient Emergency Response

[3rd Place](#), *Cyberthorn 2026 – BITS Dubai*

Built an AI-powered emergency drone prototype using a 3D digital twin to counter GPS spoofing securely.

DocuMaster – AI Document Validator

[3rd Place](#), *Zayed University*

Built an Automated validation and queue analysis using Python and OCR to eliminate manual reviews.

DeedFlow – Compliance-First Workflow Engine

[3rd Place](#), *cOmpiled-2 UAE Hackathon*

Built a compliance-first workflow engine to simplify real estate transactions.

NO-RUSH – AI Short Film

[BEST FILM AWARD](#), *AI Microfilm Challenge*

Created an AI-generated short film in 24 hours alongside teammate Huda Mueen, combining AI-assisted visual storytelling, filmmaking, and creative production.

NASA Space Apps Dubai Hackathon

[SPECIAL AWARD – Most Promising Idea](#)

Built *Meteor Madness*, a 3D near-Earth object tracker using React Three Fiber/Three.js and NASA datasets.

Education

BSc in Software Engineering, Al Ain University *Aug 2023 – Mar 2027*
Core topics: DSA, OOP, OOAD, Database Systems (SQL), Web Development, SDLC.

Applied Agentic AI for Organizational Transformation, MIT *May 2026 – Jul 2026*
Professional Education
Artificial Intelligence track – *Grade: A*

Level 4 Micro-Credential – C Programming *Jul 2025*
National Qualifications Centre (UAE Ministry of Education) – *Competent with Distinction*

Certifications

Google Certified Educator Level 1 & 2 *Feb 2026*
Google for Education – *Advanced Google Workspace Education expert.*

Google Certified Trainer *May 2025*
Google for Education – *Drive Google for Education tool adoption.*

Generative AI Mastermind – Certificate of Completion *Oct 2026*
Outskill – *16+ hours of advanced AI application development.*

AWS Certified AI Practitioner *Jul 2026*
AWS – *AI, machine learning, generative AI, model selection, prompt engineering, and responsible AI on AWS.*

MIT No Code AI and Machine Learning *Mar 2026 - Jun 2026*
MIT – *No Code AI and Machine Learning: Building Data Science Solution*

Microsoft Certified: Azure AI (AI-900) *Jun 2025*
Microsoft – *AI/ML concepts and Azure AI services across computer vision, NLP, and responsible AI.*

Huawei HCIA-AI V3.5 Certification *Dec 2024*
Huawei – *AI/ML, deep learning, TensorFlow, MindSpore, and applied AI foundations.*

ZT 101: Introduction to Cloudflare Zero Trust *Sep 2026*
Cloudflare – *Zero Trust deployment, service onboarding, security architecture, and troubleshooting.*

Model Context Protocol: Advanced Topics *May 2026*
Anthropic – *MCP architecture, tool/data integrations, and advanced server design for AI systems.*

Certification: Node-RED Advanced *Feb 2026*
FlowFuse – *Advanced Node-RED development for industrial automation, integrations, and workflow orchestration.*

CS50x – Cyber Security *Oct 2024*
Harvard University – *Grade: A+; security of accounts, systems, software, data, and privacy.*

Microsoft Certified: Power Platform Fundamentals (PL-900) *Jul 2025*
Microsoft – *Power Apps, Power Automate, Power BI, and enterprise workflow automation.*

Volunteering

Community Police Volunteer, Abu Dhabi Police *Dec 2023 – Present*

- Contributed **500+** hours across **70** public safety and community events.

Languages

English, Hindi, Urdu, Arabic (Reading & Writing)