

MANAL SALEM ALYAMI | AI Engineer

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Portfolio: manalalyami7.github.io/portfolio • **Nationality:** Saudi

SUMMARY

AI Engineer with hands-on experience building LLM-orchestrated pipelines, RAG architecture, and computer vision systems. First-place winner of the GenAI Bootcamp (SDA) for architecting a multilingual chatbot designed for national-scale Hajj pilgrim services. Published IEEE researcher with a strong foundation in applied AI and end-to-end system development.

SKILLS

LLMs & GenAI: LangChain, LangGraph, OpenAI API, Prompt Engineering, RAG, Embeddings, FAISS, AI Agents

Computer Vision: YOLO, CNN, OpenCV, Real-Time Object Detection, Edge AI Deployment

NLP & Deep Learning: LSTM, GRU, Hugging Face Transformers, Neural Networks

Frameworks: TensorFlow, PyTorch, Scikit-learn, Keras, Streamlit, Supabase

Programming: Python, SQL, JavaScript, Java, Dart, HTML/CSS

Tools: Git/GitHub, Jupyter, Azure (AI-900), MySQL, SQLite, Power BI

Soft Skills: Leadership & Team Management · Stakeholder Communication · Research & Publication · Cross-Functional Collaboration · Agile Methodologies

PROJECTS

Smart Hajj – AI Chatbot & Voice System | Python, LangGraph, LLMs, Streamlit, SQLite, Supabase

- Led 3-person team to design and build a multilingual chatbot and voice bot (Arabic, English, Urdu) — awarded 1st place at the GenAI Bootcamp, Saudi Digital Academy.
- Architected LangGraph-orchestrated conversation flows with real-time fraud preventions features, achieving 94% intent accuracy and under 2s response time.

Rehaab – EV Reservation & Crowd Management | Python, Flutter, Django, MySQL, YOLOv8

- Built end-to-end mobile and web system for electric cart reservations at Al-Masjid Al-Haram — 4-person agile team.
- Implemented YOLOv8-based vehicle detection and congestion heatmapping; iterated on model outputs to improve accuracy.
- Evaluated by 20 end users across 3 roles following full deployment pipeline.

Drone-Based Parking Surveillance | Python, YOLO, CNN, OpenCV, Edge AI

- Developed autonomous drone control scripts for real-time video processing and occupancy monitoring.
- Optimized model inference for Edge AI hardware at Tuwaiq Academy.

WORK EXPERIENCE

Data/BI Analyst (Cooperative Training), Saudi Aramco, Dhahran, Saudi Arabia

Jan 2025 – Mar 2025

- Predictive Reporting:** Engineered a Power BI dashboard for 14K+ records to identify departmental knowledge transfer bottlenecks; featured in a departmental Business Review.
- Strategic Insights:** Developed 3 Excel reports and an integrated dashboard to consolidate training simulator resources, improving resource allocation strategies for senior leadership.

EDUCATION

Generative AI Bootcamp

Saudi Digital Academy, Riyadh, Saudi Arabia

Aug 2025 – Nov 2025

Bachelor of Information Technology – Data Science and AI Track

King Saud University, Riyadh, Saudi Arabia • GPA: 4.69/5 (Excellent with Second Class Honors)

Aug 2020 – May 2025

PUBLICATIONS

Electric Mobility Vehicle Reservation and Crowd Management for Al-masjid Al-haram

2024 IEEE International Conference on Computing (ICOCO)

- Authors:** L. Altamimi, M. Alyami, et al.
- Key Contribution:** Architected YOLOv8-based vehicle tracking and heatmapping pipelines, achieving 85% detection accuracy in high-density environments.

CERTIFICATIONS

NLP & Transformers – NVIDIA & Tuwaiq Academy

Feb 2026

Operating Drones Using AI Algorithms – Tuwaiq Academy

Jan 2026

Azure AI Fundamentals (AI-900) – Microsoft

Nov 2025

Deep Learning Fundamentals – NVIDIA – Nov 2024

Nov 2024

LANGUAGES

Arabic – Native

English – Advanced / Professional Working Proficiency (STEP Score: 81)