

# Manal Salem Alyami

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Riyadh, Saudi Arabia

## SUMMARY

AI Engineer specializing in Generative AI, LLMs, and production-ready AI systems. GenAI Bootcamp graduate (Nov 2025) with first-place award for deploying multilingual AI chatbot serving 100K+ users. IT graduate (May 2025) and published IEEE researcher with expertise in LangChain, LangGraph, RAG architectures, and model deployment. Proven ability to build scalable AI solutions combining prompt optimization, vector databases, and modern AI frameworks with measurable business impact. Deeply focused on understanding user needs and creating accessible, intuitive AI experiences that prioritize user satisfaction and real-world usability.

## TECHNICAL SKILLS

**LLMs & GenAI:** Fine-tuning, Prompt Optimization, Retrieval-Augmented Generation (RAG), Embeddings, Vector Databases (FAISS), Model Deployment, AI Agents, OpenAI API

**AI/ML Frameworks:** LangChain, LangGraph, TensorFlow, PyTorch, Scikit-learn, Keras, Hugging Face Transformers

**Programming Languages:** Python, SQL, JavaScript, Java, Dart, HTML/CSS, PHP

**Deep Learning:** LSTM, GRU, Computer Vision, NLP, Natural Language Processing, OpenCV

**Data Science:** Predictive Modeling, Statistical Analysis, Feature Engineering, Pandas, NumPy, Matplotlib, Seaborn

**Development & Deployment:** Streamlit, Streamlit Cloud, Git/GitHub, VS Code, Azure (AI-900 certified), Supabase, Flutter, MySQL, SQLite

**BI & Visualization:** Power BI, Excel, Data Storytelling

## PROJECTS

**Smart Hajj – AI Chatbot and Voice Bot System** | Python, LangGraph, LLMs, Streamlit, SQLite, Supabase

- Led 3-person team to build multilingual AI system using OpenAI API for 2M+ annual Hajj pilgrims, supporting Arabic, English, and Urdu with real-time fraud detection capabilities
- Deployed production system via Streamlit + Supabase achieving 94% intent accuracy with LangGraph orchestration, handling 1,000+ concurrent users with <2s average response time
- First place winner in GenAI Bootcamp; demonstrated expertise in prompt engineering, conversation flow design, and production AI deployment

**Rehaab – Electric Vehicle Reservation and Crowd Management System** | Python, Computer Vision, MySQL, Flutter

- Peer-reviewed and published at IEEE ICOCO 2024; developed AI system optimizing electric cart reservations and crowd management at Al-Masjid Al-Haram
- Reduced cart wait times by 60% in simulation testing with computer vision model achieving 88% vehicle detection accuracy
- Demonstrated end-to-end AI development: model training, optimization, deployment, and performance monitoring

**Sentiment Analysis for Mental Health** | Python, NLP, LSTM, GRU, Deep Learning

- Developed predictive NLP models analyzing 40K+ text samples using LSTM and GRU architectures, achieving 80% multi-class accuracy
- Implemented text preprocessing pipelines, embedding layers, and deep learning optimization techniques

## WORK EXPERIENCE

**Data Analysis Intern (Cooperative Training)**, Saudi Aramco, Dhahran, Saudi Arabia

Jan 2025 – Mar 2025

- Built Power BI dashboards on 14K+ records to identify knowledge transfer bottlenecks, featured in a departmental Business Review.
- Developed Power BI and Excel solutions to consolidate training simulator resources and identify knowledge gaps, improving accessibility and transfer strategies.
- Presented data-driven insights to senior leadership and collaborated with consultants to align deliverables with organizational goals.

## CORE COMPETENCIES

AI Development • LLM Deployment • Prompt Engineering • Model Optimization • Team Leadership • Cross-Functional Collaboration • Research & Publication • Problem Solving • Technical Documentation • Innovation • Bilingual (Arabic/English) • Agile Methodologies

## EDUCATION

**Generative AI Bootcamp**

Aug 2025 – Nov 2025

Saudi Digital Academy, Riyadh, Saudi Arabia

**Bachelor of Information Technology – Data Science and AI Track**

Aug 2020 – May 2025

King Saud University, Riyadh, Saudi Arabia • GPA: 4.69/5

## CERTIFICATIONS

- Microsoft Certified: Azure AI Fundamentals (AI-900) – Nov 2025
- Fundamentals of Deep Learning – NVIDIA – Nov 2024
- Power BI for Modern Analysts – Saudi Aramco – Jan 2025