Mohammad Mheidat

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Portfolio: mheidat.dev

Summary

AI Engineer delivering production generative and agentic AI systems for a UAE government entity. Cut service-catalogue errors from 30% to 1% with an AI assistant, and built agentic and automated mystery-shopping and evaluation tools across phone, web, email, social media and mobile channels. Software engineering foundation from 42 Abu Dhabi, from C++ systems work to full-stack TypeScript, plus banking and teaching experience that helps turn complex processes into AI tools people actually use.

Experience

AI Engineer — HNW Research and Consultancy, Abu Dhabi

Jul 2026 – Present · Client: UAE government entity (confidential)

- Developed an AI assistant over the government service catalogue using RAG and LLMs via Core42, cutting incorrect service results from 30% to 1%.
- Engineered an AI pipeline that turns service cards into visual, AI-generated customer journey maps.
- Designed “Layla”, an agentic mystery shopper with a Jordanian accent who holds live voice conversations with call-centre agents (LiveKit, ElevenLabs, Speechmatics), with a separate evaluator that scores service quality.
- Delivered a call-center analyzer: staff drag and drop call recordings, Whisper transcribes them, and an LLM scores the conversation and writes final feedback.
- Created Citizen Feedback QR: citizens scan a QR code to leave feedback, which the system collects from a government services platform, analyses with Core42-hosted LLMs and ranks by urgency so critical issues reach the right team first.
- Built an automated mystery-shopping suite that tests the entity's digital channels end to end: Playwright website checks, IMAP-based email tests that score both auto-replies and agent replies, social media tests, and Appium tests that install and evaluate the mobile app.

Grade 12 Mathematics Teacher — Al Qeyam Charter Schools, Abu Dhabi

Feb 2026 – Jun 2026

- Taught Grade 12 mathematics while completing a postgraduate teaching qualification.
- Explained advanced concepts to mixed-ability classes, a skill now used to explain AI systems to non-technical stakeholders.

Software Engineering Trainee (Level 4) — 42 Abu Dhabi

Dec 2023 – Mar 2026

- Completed the 42 Common Core: a peer-to-peer, project-based curriculum in C, C++, Unix and systems programming.
- Built an IRC server in C++: a Discord-style text chat with channels and multiple simultaneous clients.
- Co-built M&Ms, a full-stack web platform with live chat, real-time multiplayer Pong, and Google sign-in alongside standard login. Built with a TypeScript and Fastify backend, Tailwind CSS frontend, SQL database, WebSockets and Redis, deployed with Docker.

Customer Service Representative — Emirates Islamic Bank, Abu Dhabi

Feb 2022 – Oct 2023

- Served customers in a regulated banking environment. This front-line service experience now informs the call-centre and mystery-shopping evaluation tools built at HNW.

Customer Service Representative — ADCB (Abu Dhabi Commercial Bank), Abu Dhabi

Sep 2020 – Nov 2021

- Handled customer enquiries and service requests in a regulated retail banking environment.

Projects

MMORPG Game — Unity (personal project, in development)

- Built real-time multiplayer with FishNet networking, plus boss encounters and a quest system.
- Next milestones: world map, character classes, gear system, and UI and visual design.

Technical Skills

- **Generative AI:** RAG, vector databases, TF-IDF retrieval, prompt engineering, LLM evaluation, agentic AI, speech and call analysis (ElevenLabs, Speechmatics, Whisper)
- **Frameworks:** LangChain, LangGraph, LangSmith
- **Cloud and DevOps:** Core42 AI Cloud, LiveKit, GitHub Actions (CI/CD), Docker, Git
- **Programming:** Python, TypeScript, SQL, C, C++, C# (Unity)
- **Web and real-time:** FastAPI, Fastify, Tailwind CSS, WebSockets, Redis, Google OAuth
- **Automation:** Playwright, Appium; web, email, social media and mobile app workflow automation

Education

- **Postgraduate in Education** — Abu Dhabi University, Jun 2025 – Jul 2026
- **Software Engineering Diploma, Level 4** — 42 Abu Dhabi, Dec 2023 – Mar 2026
- **BSc in Finance** — Tafila Technical University (TTU), Jordan, 2016 – 2020

Languages

Arabic (native) · English (fluent)