

ASIL MOKHTAR ABDULDAEM *AI Engineer*

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Male

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SUMMARY

AI & Digital Transformation Engineer with 2+ years of experience designing and building data-driven solutions, intelligent agents, and internal platforms. Strong background in the oil and gas sector working with production and well-test data, while also delivering end-to-end digital systems: from databases and APIs to user-facing web apps and dashboards. Built machine learning models for **well production forecasting**, **LLM-based chat and voice agents** that query internal databases and provide engineering insights, and multiple internal platforms, including a **talent evaluation system for recruiting** and a **digital permit platform with live supervisor updates**. Comfortable working across the stack (**Python, SQL, Next.js/React, PostgreSQL, vector databases like Supabase/Qdrant, Power BI, n8n**) to turn manual processes into scalable digital workflows. Also trained in robotics programming with Mitsubishi **MELFA Basic V**.

Professional Experience

AI & DIGITAL TRANSFORMATION ENGINEER – OIL & GAS, PETGO

12/2024 – 01/2026 | Tripoli, Libya

- Designed and implemented **linear regression models** to predict well production using historical production, well-test results, reservoir properties, and operational parameters.
- Built end-to-end ML workflows: data preprocessing, feature engineering, model training, evaluation, and continuous improvement based on feedback from engineers.
- Developed an **AI agent powered by LLMs** that connects to company databases, understands natural-language questions (Arabic & English), generates SQL queries, and returns clear engineering insights and summaries.
- Created **voice-enabled AI agents** to allow users to interact with internal data and tools using speech, improving usability and accessibility.
- Used **n8n** to automate workflows, schedule jobs, trigger notifications, and connect AI agents with databases, APIs, and internal services.
- Built an internal **evaluation platform for talent recruiting** using **Next.js, React, and PostgreSQL**, enabling structured technical assessments and centralized candidate tracking.
- Designed and implemented a **digital permit platform** for work permits, allowing employees to submit requests online with **real-time status updates and notifications** to supervisors, reducing paperwork and improving transparency and approval speed.
- Worked with **vector databases** (e.g., Supabase vector features, Qdrant) to store embeddings and power retrieval-augmented generation (RAG) and semantic search over internal documents and data.
- Integrated ML predictions and historical data into **Power BI dashboards**, enabling engineers and management to visually explore production forecasts, trends, and underperforming wells.
- Collaborated with production engineers, IT teams, and management to deploy these solutions and demonstrate their business and operational impact.

DATA ANALYST – OIL & GAS, PETGO

05/2024 – 11/2024 | Tripoli, Libya

- Worked with the company's **production and well-test data systems** to monitor well performance and support engineering analysis.
- Helped maintain and improve **allocation logic and rules** to correctly distribute production to individual wells and facilities.
- Cleaned, validated, and organized large volumes of production and well-test data to improve the quality and reliability of reports and models.
- Built **Power BI reports and dashboards** for well performance, allowing engineers and managers to quickly identify trends, anomalies, and underperforming wells.
- Supported production and reservoir engineers by translating their questions into data-driven analyses and clear visual insights.

EDUCATION

BACHELOR OF SCIENCE - COMPUTER ENGINEERING,
Dogus university

07/2023 | Istanbul/Turkey

Certificates

- Robotics Programming with MELFA Basic V – Mitsubishi Electric

SKILLS

Data & Machine Learning:

Data cleaning & preprocessing, exploratory data analysis, linear regression, model evaluation, production forecasting, feature engineering, data visualization

Automation & Orchestration:

n8n (workflows, integrations, scheduling), basic API integrations

Data & BI Tools:

Power BI (interactive dashboards, basic DAX), Excel, Jupyter Notebooks

Databases:

PostgreSQL, MongoDB, vector databases (Supabase vector, Qdrant)

AI & Agents:

LLM-based agents for database Q&A, prompt engineering, voice agents, retrieval-augmented generation (RAG), semantic search

Web Development:

Next.js, React, REST APIs, internal tools & dashboards, basic UI/UX

Programming: Python, C#, JavaScript/TypeScript, SQL

Software Engineering:

System analysis & design, UML diagrams, Windows Forms (C#), basic game development (Unity, Python)

LANGUAGES

Arabic

Native

English

Fluent

Turkish

Intermediate

HOBBIES

Sports(Tennis, Football), Playing guitar