



# Mohammed Alabdulmuhsin

Full Stack Engineer | AI Application Developer

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## Profiles

🐙 GitHub

🌐 LinkedIn

✂ X

🎓 Coursera

## Summary

As a Full Stack Engineer and Computer Science student at King Faisal University, I specialize in building scalable, AI-enhanced web applications using modern frameworks like React.js, Next.js, and Python Flask. My background includes developing secure backends with ORM databases, deploying full-stack projects to production, and creating dynamic user interfaces with Tailwind CSS. I bring strong experience in integrating Generative AI into applications—ranging from content creation tools to sentiment analysis systems—bridging cutting-edge technology with real-world use cases. Backed by certifications in Python, Data Analysis, and Machine Learning, I am driven by continuous learning and a passion for solving complex problems through innovative software solutions.

## Education

### King Faisal University

Computer Science and Information Technology  
4.30/5

August 2020 - December 2025

Bachelor

## Experience

### Muqallam

Full Stack Engineer  
🌐 <https://www.muqallam.com/>

August 2024 - Present

**Muqallam** is a startup aiming to simplify content creation in the advertising sector through the use of generative artificial intelligence.

In my role at **Muqallam**, I am responsible for developing the landing page using Tailwind CSS, implementing user authentication, designing and implementing database schema, create functionality for social media posting through API integration and webhooks.

Built user dashboard, implement analytics features and presented in the UI

## Projects

### Full-Stack Engineer — Adeeb Blog Platform 🌐 |

April 2025 - June 2025

Built a modern Arabic blogging platform from scratch using the Next.js App Router architecture. Implemented key features including user authentication (Clerk), rich text editing (TipTap), media uploads (AWS S3 via DigitalOcean Spaces), and content interaction (comments, likes, categories). Developed an admin dashboard for managing users, posts, and content moderation.

Built full-stack features using **TypeScript**, **React**, **Next.js**, **Prisma**, and **PostgreSQL**, with a responsive UI designed using **TailwindCSS** and **shadcn/ui**. Integrated **TipTap** for rich text editing, **Clerk** for authentication, and **AWS SDK** with **DigitalOcean Spaces** for scalable media storage. Containerized the application using **Docker** for streamlined deployment.

Next.js, React, TypeScript, Prisma, PostgreSQL, Tailwind CSS, shadcn/ui, TipTap, Clerk, AWS SDK, Docker, RESTful APIs

### Full-Stack Developer — Falatha Baby Monitoring System 🌐 |

September 2024 - May 2025

Designed and developed a comprehensive IoT baby monitoring solution combining embedded hardware, backend AI services, and a cross-platform mobile app. The system includes an **ESP32** sensor module capturing vital signs and environment data, integrated with a **FastAPI** backend performing deep learning cry analysis using CNN model. Developed a **Flutter** mobile app featuring real-time health tracking, sleep monitoring, cry pattern analysis, and an AI-powered chatbot assistant. Implemented multilingual support and clean architecture for scalable, maintainable code.

Flutter, Dart, FastAPI, Python, Deep Learning, CNN, TensorFlow, ESP32, Audio Processing, Multilingual Support, Mobile Development, Cloud Integration, Docker

### Full-Stack Developer — Warfa-Check (Medical Interaction Checker) 🌐 |

July 2024 - August 2024

Developed a multilingual Flask-based web app to detect interactions between Warfarin and user-inputted foods, herbs, or medications via text, image, or voice. Integrated a fine-tuned version of **OpenAI's GPT-4o** for image analysis, **Whisper model** for voice transcription, and displayed interaction risk levels with multilingual support. Built the frontend with **Bootstrap 5**, implemented audio/image handling, and deployed the app using **Gunicorn** on **Heroku**.

Flask, GPT-4o, Whisper API, OpenAI API, JavaScript, Bootstrap 5, Web Audio API, Base64, UUID, Flask Forms, Gunicorn, Heroku, Voice Recognition, Medical AI, Fine-Tuning

## Volunteering

### Takamol Center for Orphan Care and Development

July 2024 - August 2024

Technical Assistant

I have taught high school students in mastering the basics of web programming, utilizing HTML, CSS, Bootstrap, and JavaScript. Helping them to create their own websites.

### Adeeb Club

August 2024 - Present

Technical Manager

KFU

Deal with creating and deploying any activities websites for the club, building a system to manage member's club achievements and volunteering hours.

### Artificial Inelegance and Programming (AIP) Club

August 2022 - Present

AI team | Web Dev Team member

KFU

## Certifications


### Advanced Training of the KAUST Academy Artificial Intelligence specialization.

March 2025

KAUST Academy

### The Complete 2021 PHP Full Stack Web Developer Bootcamp

June 2021

Udemy 

(HTML, CSS, JAVASCRIPT, BOOTSTRAP, PHP, MYSQL, PHP OOP, WORDPRESS, XML, API, JSON and REST)

### Machine Learning with Python

February 2024

IBM 


### Developing AI Applications with Python and Flask

March 2024

IBM 


### Mathematics for Machine Learning and Data Science

December 2024

DeepLearning.AI 

### Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization

December 2024

DeepLearning.AI 

## Skills

<b>Problem solving skills</b>	<b>Team Player</b>	<b>Adaptability</b>	<b>Fast Learning</b>	<b>excellent verbal communication</b>
<b>HTML/CSS</b>	<b>Tailwind</b>	<b>JavaScript/TypeScript</b>	<b>React.JS</b>	<b>Next.JS</b>
<b>Python</b>	<b>Version Control (Git)</b>	<b>Docker</b>	<b>DigitalOcean</b>	<b>MVC</b>
<b>Jira/BitBucket/Slack</b>	<b>MySQL/Firebase/PostgreSQL</b>	<b>Linux</b>	<b>Selenium</b>	<b>Agile/Scrum</b>

## Extra Curriculum Activities

### JavaScript Bootcamp

9-10 February 2025

In affiliation with AIP club and CODE Lab KFU

CODE Lab KFU

- Designed and delivered a **3-day intensive JavaScript bootcamp** covering beginner, intermediate, and advanced topics.
- Taught **core JavaScript concepts**, including ES6+ features, asynchronous programming, and API integration.
- Led hands-on coding sessions and guided participants in building real-world projects.
- Helped attendees improve their problem-solving skills and gain practical experience.

## Languages

### Arabic

Native

### English


Professional efficiency

## Publications

### Development of an Artificial Intelligence-Enhanced Warfarin Interaction Checker Platform.

March 24, 2025

PLOS Digital Health

 <https://journals.plos.org/digitalhealth/article?id=10.1371/journal.pdig.0000756>