

Mohammed Al Subhi

Software Engineer

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LinkedIn | GitHub

Software engineer with practical experience in full-stack development, backend APIs, relational database design and applied machine learning. Built and delivered healthcare systems, developed learning-platform data models and integrated trained forecasting models into a hotel-management application.

Professional Experience

TechWin

Aug 2026 - Present

Full-Stack Development Trainee

- Designed TechWin Academy's complete entity relationship diagram (ERD) and implemented its database tables, relationships and schema changes through Laravel migrations.
- Built a support-ticket platform with React and TypeScript, a modular NestJS REST API and PostgreSQL/TypeORM persistence; connected ticket workflows across the application layers.
- Implemented ClickUp integration to create external tasks, store reference IDs and synchronize status changes through webhooks and scheduled reconciliation jobs.
- Configured Docker-based database development and deployed the frontend through AWS S3, CloudFront, Route53 and ACM, including custom-domain HTTPS and SPA routing.
- Delivered an introductory game-development workshop covering development stages, game design and engine selection.

KSAU-HS College of Medicine

Aug 2026 - Present

Full-Stack Software Engineer (Volunteer) | Remote

- Serving as the primary development contributor to the sixth Ahyiha Blood Donation Campaign's digital platform, using React, NestJS, Prisma and Supabase PostgreSQL.
- Designed workflows that separate donor registration, event attendance and medically verified donation records, supporting preliminary eligibility screening and campaign operations.
- Developing certificate issuance and public QR verification tied to confirmed campaign events, alongside donor engagement and community-service workflows.
- Working with organizers and medical reviewers on requirements, deployment checks and documentation; integrating WhatsApp community, Qatrah bot and Apple Wallet services within the approved scope.

Health Co.

Jun 2026 - Jul 2026

Oracle APEX Developer Intern | On-site

- Migrated core healthcare complaints workflows from Node.js/MySQL to Oracle APEX and Oracle Database, translating legacy requirements into application and database components.
- Implemented PL/SQL packages, least-privilege views and authorization schemes for hospital-level data isolation; used optimistic locking to detect conflicting record updates.
- Completed and hardened a Node.js/Express and MySQL appointment and queue-management system with role-based access and signed, expiring QR links; tested expiry and tampering paths.
- Verified database and APEX metadata to limit sensitive-data exposure in reports and downloads; maintained versioned exports, tests and Git baselines, then handed over the systems for continued use.

Selected Projects

Roomify

GitHub

Hotel Management System and Applied ML Prototype

- Built the React frontend, Java/Spring Boot backend, PostgreSQL data layer and Python/FastAPI ML service as the primary implementation contributor in a team graduation project.
- Built reservation, check-in/check-out and billing workflows with room-availability conflict checks, JWT-based access control, audit logging and PDF invoices with ZATCA QR code generation.
- Independently prepared two years of synthetic daily room-type data and trained separate Random Forest regression models to forecast hotel revenue and occupancy.
- Evaluated models with chronological holdout, room-type baselines, MAE, RMSE, R^2 and rolling-origin validation; converted forecasts into bounded pricing recommendations for manager review.
- Served predictions through FastAPI, integrated authenticated Spring Boot endpoints and visualized forecasts in a React dashboard using Recharts.

Chess Data API and Automation

TypeScript, Cloudflare Workers, Hono, Zod, chess.js, Vercel

- Built an API to retrieve, normalize and deduplicate Chess.com games and expose game, profile and statistics endpoints while preserving PGN and game metadata.
- Automated scheduled synchronization into a GitHub data repository with change detection; deployed Cloudflare and Vercel endpoints and configured a custom domain.

Exampulse

GitHub

Open Source Python CLI and Data Analysis

- Built a Python CLI that syncs WHOOP sleep and recovery data through OAuth, stores records in SQLite and compares exam-night metrics against personal baselines.
- Implemented calendar and JSON schedule imports, repeatable data ingestion and report generation, separating data collection, scoring and presentation layers.

Technical Skills

Programming: Java, Python, TypeScript, JavaScript, PHP, SQL, PL/SQL

Backend and Platforms: Spring Boot, NestJS, Laravel, FastAPI, Express, Oracle APEX

API and Security: REST APIs, Spring Security, JWT, role-based access control

Frontend: React, TypeScript, Tailwind CSS, Recharts

Databases: PostgreSQL, Oracle Database, MySQL, SQLite, relational modeling

ORM and Migrations: Spring Data JPA/Hibernate, Prisma, TypeORM, Flyway

Machine Learning: scikit-learn, pandas, Random Forest, data preparation, model evaluation

Quality and Delivery: Git, GitHub Actions, Docker, Postman, JUnit/Mockito, Vitest, pytest

Cloud: AWS S3, CloudFront, Route53, ACM, Cloudflare Workers, Vercel

Education

Bachelor of Science in Software Engineering | Expected 2027

Umm Al-Qura University | GPA: 3.71/4.00

Languages

Arabic: Native | English: Advanced