

Mahdi Ahmed

imahdiahmed01@gmail.com | +44 7305 682459

London, UK | github.com/mahdiuahmed | linkedin.com/in/mahmed01 | mahdiuahmed.com | medium.com/@imahdiahmed01

Professional Experience

Hackney Islamic Community Centre, Head Developer & Media Management

04/2023 – Present | London, UK

- Amplified brand presence and user engagement through the design of marketing materials and strategic management of social media platforms.
- Accelerated feature delivery by 300% by overhauling the development process, clearing a 21-feature backlog, and establishing a predictable and planned release cycle.
- Practiced Agile development within a Scrum framework, collaborating daily with developers, testers, and the Scrum Master to maintain project momentum and remove blockers.
- Led the design and development of an online learning platform and inheritance portals, directly increasing digital access for the community.
- Demonstrated adaptability and commitment by seamlessly fulfilling substitute teaching duties, ensuring educational continuity and institutional support.

Skills

Programming Languages

Python, Java, TypeScript, JavaScript, HTML, CSS, SQL, PHP

Database Systems

PostgreSQL, Supabase, DynamoDB, Firebase Firestore, MySQL

QA Testing

BDD, TDD, E2E, Selenium Grid, noVNC, Pytest, Mocha, Chai, Sinon, Vitest, Cypress, Jest, Cucumber, Gherkin

Libraries / Frameworks

Node.js, React.js, Next.js, React Native, Flask, Tailwind CSS, FastAPI

Cloud & DevOps

AWS: IAM EC2, S3, Lambda, ECR

Google Cloud: Firebase (Auth, Hosting, Storage)

Tools: Docker, Git, GitHub Actions, Linux, Jenkins, Prometheus, Jira, Confluence, Checkov, Grafana, REST API

Projects

Notavox - AI Transcription

- Built a full-stack AI transcription platform using Next.js, AWS Lambda, S3, DynamoDB, and OpenAI Whisper, supporting multi-language audio/video transcription.
- Containerised and deployed a Python Whisper model in AWS Lambda via Docker and ECR for scalable serverless processing.
- Integrated Clerk authentication and Cypress E2E testing to ensure secure, tested, and reproducible user workflows.
- Designed least-privilege IAM roles, automated S3–Lambda pipelines, and optimised real-time transcript retrieval for efficient cloud operation.

Software Quality Engineering & Observability Platform

- Engineered a multi-service application using Docker Compose, orchestrating frontend (Next.js), backend (FastAPI + SQLAlchemy), and PostgreSQL.
- Developed and documented RESTful APIs with FastAPI for robust product data management.
- Implemented comprehensive automated testing: Pytest for backend, Mocha for unit UI tests, and Selenium Grid for end-to-end browser testing in Docker. Utilised Pandas to perform backend analytics and extract database insights.
- Built a Jenkins CI/CD pipeline running inside Docker, enabling automated builds, tests, and analytics triggered from GitHub.
- Integrated Prometheus + Grafana for production-grade monitoring.
- Solved advanced tooling challenges including Babel + CommonJS compatibility for Mocha and arm64 automation using Seleniarm.
- Ensured a fully reproducible development and test environment without local dependencies — database, tests, and monitoring all run in containers.

Uptime Monitor - Website Monitoring

- Engineered a real-time uptime monitoring platform with Next.js with secure server actions and dashboard UI for website health tracking.
- Implemented BDD with Cucumber & Gherkin, writing human-readable acceptance tests that validate full uptime-monitoring workflows and user journeys.
- Built a unified automated testing suite using Vitest + Cucumber in ESM + TypeScript, ensuring compatibility with Next.js/Node.js
- Wrote unit and component tests for API routes and UI logic, mocking external services to ensure reliability without touching production data.
- Integrated automated testing into GitHub Actions, enforcing regression checks on pull requests before deployment.
- Strengthened monitoring reliability by integrating Better Stack incident alerting, enabling automatic downtime detection and database-logged uptime checks.
- Secured persistent multi-user access with Clerk authentication and Supabase database for storing monitoring rules and website status history.

Education

BSc Honours - Digital Media Development (Computer Science), 2019 – 2022 | London, UK
University Of Westminster

- Object-Oriented Programming (Java): Developed a football league manager with a Java Swing GUI, applying OOP principles such as inheritance, polymorphism, and encapsulation.
- Full Stack Web Development (PHP, MySQL): Built a home technology e-commerce platform with user authentication, product management, and secure checkout functionality..
- Mobile App Development (Swift, SwiftUI): Created an iOS weather application in Xcode using the OpenWeatherMap API to deliver real-time weather forecasts.
- Certification for Student Co-Creators, working with a small team to develop a virtual reality environment for University students to view the campus during the COVID-19 Pandemic.
- Final Year Project (React Native, Firebase): Built a mobile app for online Arabic language learning, featuring user authentication, interactive lessons, and progress tracking.

References

Available On Request