Mohamed Ali

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EDUCATION

Trinity College Dublin — B.A. (Hons) Computer Science *Aug. 2022 – Nov. 2026*

Achieved 2:1 Honours. Relevant modules: Data Structures & Algorithms, Computer Networks, Advanced Computer Networks, Software Engineering Project.

EXPERIENCE

Co-Founder | Software Developer *Sep. 2025 – May 2026*

Restaurant Management System

- Co-founded and built a full-stack SaaS platform enabling real-time table reservations, QR-code-based ordering, and in-app payments across multiple restaurants.
- Designed buyer and operator-facing flows: QR-driven menus reduced ordering friction for customers, while a real-time operator dashboard tracked and fulfilled orders as they came in.
- Integrated Stripe for payments and bill-splitting, Auth0 for authentication, and Supabase for real-time data across the transaction lifecycle; enforced least-privilege access with role-based Auth0 policies and PostgreSQL Row Level Security.
- Built a serverless image processing pipeline on AWS Lambda, triggered from upload routes to resize, thumbnail, convert to WebP, and compress assets before storage in Supabase Storage.
- Set up CI/CD with Docker and GitHub Actions and covered critical flows with Playwright E2E tests, with Cloudflare protection for production releases.

Software Developer (Placement) *Jan. 2025 – May 2025*

IBM

- Designed and built an AI-powered code review and security tool that scans uploaded codebases to detect vulnerabilities and generate structured remediation recommendations, owning features end-to-end from scoping through release.
- Integrated RAG-based model workflows to identify insecure patterns in submitted code and surface actionable, prioritised fixes.
- Collaborated with a cross-disciplinary Agile team to iterate quickly on UX, model quality, and developer workflow integration.
- Presented technical findings and tool capabilities to both technical and non-technical stakeholders.

Software Developer (Placement) *Jan. 2024 – May 2024*

CreditLogic

- Led development of secure authentication and access control modules for mortgage application workflows.
- Implemented least-privilege role policies and strengthened session and user access handling across key user journeys.
- Integrated REST APIs and relational databases with a focus on reliability, data integrity, and secure handling of sensitive data.
- Analysed mortgage application data to identify redundant questions and process inefficiencies, then presented findings to stakeholders.
- Helped implement improvements that reduced application processing time by 7%.

PROJECTS

Path4All *React Native, Expo, TypeScript, Supabase, PostgreSQL*

- Built a mobile app for accessibility-focused place reviews with map-based discovery and dynamic location pins.
- Implemented structured accessibility review flows, anonymous posting, author profile display, and review deletion with live UI updates.
- Built photo capture/upload from camera or gallery with compression, preview/removal, and multi-image review support.
- Improved mobile UX by fixing stale map state via screen-focus refresh logic and strengthening upload reliability.

AI Interview Preparation App *Next.js, React, TypeScript, Gemini API*

- Built a full-stack AI interview simulator: users select a role, and the Gemini-powered flow looks up relevant context to generate tailored questions, accepts answers via typed input or mic transcription, and dynamically issues follow-up or new questions based on each response.
- Designed a scoring and feedback system that evaluates full interview performance against defined metrics and returns personalised feedback at the end of the session.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, SQL, C, HTML

CS Fundamentals: Data Structures & Algorithms, Object-Oriented Design, Complexity Analysis, Computer Networks

Mobile & Frontend: React Native, Expo, React, Expo Router, TypeScript, responsive UI design

Backend & Data: Supabase, PostgreSQL, REST APIs, Auth0, Row Level Security

Cloud & Tools: AWS Lambda, Docker, GitHub Actions, Cloudflare, Git, Playwright, Stripe, VSCode, Linux

Security: RBAC, access control, least-privilege design, vulnerability detection, TLS/SSL

Certification: Mastercard Cybersecurity Job Simulation | Forage (Oct. 2024)