Zubair Khalid

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Legally authorised to work in the UK, no sponsorship required. Available for remote, hybrid, or Manchester-based roles.

Full-Stack Software Developer specialising in event-driven systems, scalable web applications, production SaaS platforms, and AI agents using TypeScript, React, and Node.js. Proven track record delivering and maintaining end-to-end features through cross-functional collaboration, from system design through cloud deployment. Experienced in mentoring developers, writing documentation and conducting code reviews.

Technical Skills

Languages & Frameworks: TypeScript, JavaScript (ES6+), Python, React, Next.js, Node.js, Express, NestJS
Databases & Caching: PostgreSQL, MongoDB, Redis, Firebase Firestore
Cloud & DevOps: AWS (S3, Lambda, EC2, KMS), GCP (Cloud Run, Scheduler), DigitalOcean, Docker, GitHub Actions
Security: OAuth 2.0, JWT, MFA, asymmetric encryption, secure session management
Testing & Quality: Jest, Mocha, Chai, Supertest, Unit & Integration testing
Monitoring: Sentry, PostHog, Winston logging

Professional Experience

Full-Stack Developer | Hulee LTD, Salford, Greater Manchester, UK

Oct 2025 - Dec 2025 (company restructure)

- Delivered a queue-driven payroll synchronisation service for a multi-tenant SaaS platform (orta.co.uk) serving 15 organisations and 700+ staff members using Vue.js, Node.js, and MongoDB.
    - Built idempotent, resumable background jobs to sync staff data with Xero Payroll API.
    - Implemented per-employee failure isolation, enabling safe recovery from partial sync failures.
    - Performed unit and integration testing using Jest and Supertest.
    - Collaborated with the team to define technical requirements and delivery milestones in agile sprints.
- Implemented a centralised logging service using Winston with Sentry integration, enabling detailed error tracking with accurate stack traces and rich metadata for faster root cause analysis.

Full-Stack Engineer | Sage Studios AI, Remote

Aug 2024 - Jul 2025

Architected and built an event-driven, no-code AI agent platform enabling non-technical users to create autonomous, multi-step workflows. Served 1,500+ users building automated trading, analytics, and data processing agents.

Core Platform Development:

- Implemented drag-and-drop workflow builder using React Flow, including version history with time-travel support.
- Built a DAG execution engine with BullMQ job queues, ensuring idempotency, automatic retries, and graceful failure recovery across distributed workers.
- Delivered real-time UX using WebSockets for client-server interaction and SSE for live execution status updates.
- Implemented secure credential management using asymmetric encryption with AWS KMS and Lambda (Python), protecting sensitive API keys and authentication tokens.
- Integrated 10+ DeFi and analytics platforms, enabling agent-driven crypto analysis and trading workflows.
- Performed unit and integration testing using Mocha, Chai, and Supertest.

Cloud Infrastructure:

- Provisioned production infrastructure on DigitalOcean and containerised React/Node.js monorepo using Docker.
- Replaced manual deployments with automated CI/CD pipelines using GitHub Actions, reducing deployment time.

Performance & Reliability:

- Optimised LLM tool-calling accuracy through prompt engineering and Zod schema validation in TypeScript.
- Reduced development build times from 5+ minutes to a few seconds by implementing JIT TypeScript compilation, module caching, and hot module reloading.
- Diagnosed and resolved critical production issues:
  - Fixed JSON serialisation bug in workflow execution that caused performance degradation and crashes.
  - Resolved undefined behaviour from third-party dependency monkey-patching Node.js fetch API.

Team Collaboration:

- Conducted code reviews focusing on security, performance, and maintainability best practices.
- Mentored junior developer on code architecture, async JavaScript, and agentic execution in LangGraph.
- Wrote technical documentation for API endpoints, system architecture, and deployment procedures.

Full-Stack Freelancer | Remote

Apr 2023 - Aug 2024

E-commerce Shipping Platform (UK-based e-commerce client)

- Built a custom shipping management system using Next.js, reducing manual label creation from ~4 minutes to seconds through automation.
- Integrated eBay REST APIs with OAuth 2.0 authentication, handling automated order fulfilment.
- Implemented user authentication with multi-factor authentication (MFA) using Firebase Auth.

Mosque Discovery & Prayer Timings Web App ([masjid247.com)](masjid247.com)

- Developed NestJS backend and React Progressive Web App (PWA), serving 1,000+ daily active users.

Fitness Flutter App Serverless Backend (mura.fit)

- Developed TypeScript/Node.js serverless backend on GCP Cloud Run, handling 10,000+ monthly invocations.
- Implemented scheduled cron jobs using GCP Cloud Scheduler for automated goal reminders and notifications.
- Managed data persistence in Firebase Firestore (NoSQL DB).

Software Developer | Blockchain Security Lab, Lahore, Pakistan

Sept 2021 - Jan 2023

Led a 3-person development team building a decentralised SSL certificate issuance platform to innovate public key infrastructure (PKI) using blockchain technology built using React, Express, and Node.js.

- Built a full-stack application with a distributed node network deployed on AWS EC2.
- Developed and deployed Solidity smart contracts on Ethereum testnets and Polygon PoS blockchain.
- Secured an extended funding grant from NCCS Pakistan and $20,000 in AWS credits from Polygon.
- Trained 70+ industry professionals in Solidity programming through hands-on technical workshops.

Education

MSc in Data Science | Information Technology University (ITU), Lahore, Pakistan
Sept 2020 - Oct 2022 | CGPA: 3.73/4.0

BSc in Computer Engineering | University of Engineering & Technology (UET), Taxila, Pakistan
Oct 2015 - Aug 2019 | CGPA: 3.69/4.0