

# TALHA MAHMOOD

## AI-Focused Full Stack Engineer

React • Node.js / NestJS • React Native • TypeScript • LLM / RAG • AWS

Islamabad, Pakistan | +92 315 6320620 | [talhamahmood2001@gmail.com](mailto:talhamahmood2001@gmail.com) | [linkedin.com/in/mtm-talha](https://linkedin.com/in/mtm-talha)

## PROFESSIONAL SUMMARY

Full Stack Engineer with 7+ years of experience building and scaling web and mobile products across JavaScript and TypeScript. Deep expertise in React, Angular, and React Native on the frontend and Node.js / NestJS on the backend, backed by AWS, PostgreSQL, and real-time systems. For the last two years, focused on shipping production AI features — integrating LLM APIs, Retrieval-Augmented Generation (RAG), and AI-powered SaaS workflows that deliver real business value, not demos. Comfortable owning features end to end, designing scalable systems, and leading engineering teams.

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Python, SQL, HTML5, CSS3

**Frontend:** React.js, Angular, React Native, Next.js, Redux, Tailwind CSS, Responsive UI

**Backend:** Node.js, NestJS, Express.js, REST APIs, GraphQL, WebSockets (Socket.IO), Microservices

**AI / LLM:** LLM API integration (OpenAI), Retrieval-Augmented Generation (RAG), Prompt Engineering, Vector Databases, AI Agents, AI-powered SaaS

**Databases:** PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch

**Cloud & DevOps:** AWS (EC2, Lambda, S3, CloudWatch), Docker, CI/CD, Serverless, Git

**AI Dev Tools:** Claude Code, GitHub Copilot, Cursor

**Practices:** System Design, Scalable Architecture, Agile / Scrum, Code Review, Team Leadership

## PROFESSIONAL EXPERIENCE

### Senior Software Engineer | Panelist

Mar 2023 – Present

Remote — Australia

- Lead the Portal team, owning feature development and backend architecture for a production SaaS platform.
- Design and integrate REST APIs and real-time WebSocket (Socket.IO) data flows, ensuring reliable, low-latency data across the product.
- Drive integration of AI / LLM features (OpenAI API, RAG) into the existing platform, automating manual workflows and adding intelligent capabilities.
- Maintain and optimize the Node.js / NestJS backend, improving performance and system reliability under growing load.
- Mentor engineers through code reviews, technical guidance, and system-design discussions.

### Senior Software Engineer | MatchRite Care

Sep 2023 – Nov 2024

Remote — United States

- Owned design, development, and maintenance of the React frontend for MatchRite, a US-based care-matching platform.
- Built reusable, responsive UI components in React and TypeScript, improving delivery speed and UX consistency.
- Collaborated across time zones with backend and product teams to ship features on schedule and to spec.

### Senior Software Engineer | York Stream Technologies

May 2022 – Mar 2023

Remote

- Delivered full-stack features across React and Node.js for client-facing web applications.
- Built cross-platform mobile features with React Native, sharing logic between web and mobile.

### Software Engineer | Emumba

Feb 2019 – Jun 2022

Islamabad, Pakistan

- Built and maintained scalable web applications using React, Angular, and Node.js.
- Worked with AWS (EC2, CloudWatch logs, Elasticsearch) and PostgreSQL / MySQL for data-intensive systems.
- Contributed to system design, performance optimization, and production monitoring.

## Software Engineer | Immentia

Aug 2018 – Feb 2019

Islamabad, Pakistan

- Developed web application features using JavaScript frameworks and RESTful APIs.

## Web Developer | ISolExperts

Jan 2018 – May 2018

Rawalpindi, Pakistan

- Built responsive websites and interactive web features for client projects.

## SELECTED AI PROJECTS

---

### In-Product AI Assistant (RAG) — *Node.js · NestJS · OpenAI API · Vector Search · WebSockets*

- Built an in-product AI assistant that answers user questions over portal data using Retrieval-Augmented Generation, reducing repetitive support requests.
- Designed the retrieval pipeline (embeddings + semantic search) and streamed LLM responses to the UI in real time over WebSockets.

### Document Q&A with Source Citations — *React · TypeScript · OpenAI · Vector Database · Node.js*

- Developed a RAG-based feature that lets users query uploaded documents in natural language and get answers with cited sources.
- Implemented chunking, embedding, and semantic retrieval to keep responses accurate and grounded in the source content.

### Workflow Automation Agent — *Node.js · LLM APIs · Prompt Engineering · Guardrails*

- Created an AI agent that automates multi-step manual workflows, cutting hands-on effort for routine tasks.
- Added prompt templates, output validation, and safety guardrails to keep results reliable in production.

## EDUCATION

---

**M.S., Computer Software Engineering** | Bahria University

2020 – 2022

**B.S., Computer Science** | University of Arid Agriculture, Rawalpindi

2013 – 2017