

# HAMMAD AHMED RIAZ

## Full Stack Engineer | AI Application Engineer

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### PROFESSIONAL SUMMARY

Full Stack Engineer with 5+ years of experience building and scaling production web applications in healthcare, edtech, and sales technology, now specialized in AI application engineering. Built and operate a retrieval-augmented generation (RAG) assistant serving 1,000+ daily active users on OpenAI APIs and vector search. Currently completing a MSc in Applied Image & Signal Processing (AI, computer vision, machine learning) at FH Salzburg, Austria. Deep expertise in TypeScript, React, Next.js, Node.js, NestJS, and PostgreSQL, with a track record of measurable impact: 20% faster database queries, 35% higher deployment frequency, and 90%+ test coverage on core services. Based in Salzburg with Austrian work authorization, seeking long-term Software Engineer, Full Stack Engineer, or AI Application Engineer roles in the DACH region.

### KEY ACHIEVEMENTS

- Shipped 10+ production applications across healthcare, edtech, real estate, and sales domains.
- Built and scaled an AI knowledge assistant (OpenAI + RAG + vector database) to 1,000+ daily active users.
- Cut database query latency by 20% and raised deployment frequency by 35% through schema optimization and CI/CD adoption.
- Reached 90%+ Jest test coverage on core services and mentored 4 junior developers, reducing code review cycle time by 25%.

### TECHNICAL SKILLS

**Frontend:** React, Next.js, TypeScript, JavaScript (ES6+), Redux Toolkit, Tailwind CSS, Material UI, React Native

**Backend:** Node.js, NestJS, Express.js, Python, FastAPI, REST APIs, GraphQL, WebSockets, Microservices Architecture

**AI / Machine Learning:** OpenAI API (GPT-4o), Prompt Engineering, Retrieval-Augmented Generation (RAG), Vector Databases, Embeddings, LLM Application Development, Computer Vision, Machine Learning, PyTorch

**Databases:** PostgreSQL, MongoDB, MySQL, Prisma, Mongoose, Redis (BullMQ)

**Cloud & DevOps:** AWS (EC2, S3, Lambda), Docker, CI/CD Pipelines, GitHub Actions, Git, Linux

**Security & Auth:** Authentication & Authorization, OAuth 2.0, JWT, Role-Based Access Control (RBAC)

**Testing & Practices:** Jest, Unit & Integration Testing, Agile/Scrum, Code Review, Jira, Postman, Stripe Integration

### PROFESSIONAL EXPERIENCE

#### Full Stack Engineer

Mar 2024 - Present

**Xeven Solutions** | Remote (based in Salzburg, Austria)

- Integrated OpenAI GPT-4 and GPT-4o APIs into client products, shipping AI chat assistants and content generation features with type-safe, prompt-engineered TypeScript pipelines.
- Designed NestJS backend services and optimized PostgreSQL and MongoDB data layers, cutting average query latency by 20% through indexing and schema improvements.
- Drove CI/CD adoption with GitHub Actions and Docker, raising deployment frequency by 35% and bringing core services to 90%+ Jest test coverage.
- Mentored 4 junior developers and introduced structured code review practices, reducing review cycle time by 25%.

#### MERN Stack Developer

Jan 2023 - Feb 2024

**Webseowiz Tech** | Lahore, Pakistan

- Built a full-stack CRM with React, Node.js, and MySQL used daily by 200+ sales representatives, delivering 15+ REST API endpoints powering real-time dashboards.
- Designed normalized MySQL schemas for contact and deal management, cutting average query response time by 30%.

## Frontend Engineer

May 2022 - Apr 2023

**SarcMedIQ / ELK Tech** | Remote

- Developed 30+ modular React and Redux components for clinical device interfaces, improving render performance by 45% on low-spec hardware.
- Delivered responsive, pixel-accurate UIs across 6 breakpoints with React and Material UI, and optimized MongoDB indexing to reduce collection query times by 35%.

## Frontend Engineer

Aug 2020 - Aug 2021

**Lasting Sales** | Lahore, Pakistan

- Launched sales dashboards with React, Redux, and Tailwind CSS, cutting user task completion time by 20%.
- Built a reusable design system component library adopted across the product.

## SELECTED PROJECTS

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### Shahada GPT | *AI Knowledge Assistant (RAG), 1,000+ daily active users*

- Built a conversational AI assistant delivering source-grounded answers in a sensitive knowledge domain, solving the reliability and hallucination problems of generic chatbots.
- Engineered the full retrieval-augmented generation pipeline: document embeddings, vector database retrieval, and structured prompt engineering on OpenAI APIs, keeping every answer traceable to verified sources.
- **Stack:** OpenAI API, RAG, Vector Database, Embeddings, React, Node.js, TypeScript.

### Somatic Health | *Telehealth Platform (production)*

- Developed a production telehealth platform connecting patients and providers, with real-time appointment scheduling, secure role-based patient-provider workflows, and Stripe subscription billing.
- **Stack:** Next.js, NestJS, TypeScript, PostgreSQL, Stripe, REST APIs.

### Awfera Innovations LMS | *Multi-tenant EdTech Platform*

- Architected a multi-tenant Learning Management System serving multiple institutions from one codebase, with tenant isolation, role-based access control, and content delivery pipelines built for scale.
- **Stack:** React, NestJS, PostgreSQL, Multi-tenancy, RBAC.

## EDUCATION

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### MSc Applied Image & Signal Processing

*In progress*

**FH Salzburg / Paris Lodron University of Salzburg** | Salzburg, Austria

**Focus:** Artificial Intelligence, Computer Vision, Machine Learning, Image & Signal Processing, Applied Statistics, Data Compression

### BSc Software Engineering

2019

**University of Gujrat** | Pakistan

## LANGUAGES

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**English:** C1 (professional working proficiency)    **Urdu:** Native    **German:** A1, in active study toward A2

## ADDITIONAL INFORMATION

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- **Work authorization:** Valid Austrian residence and work permit, based in Salzburg; eligible for the Red-White-Red Card after MSc graduation for long-term full-time employment.
- **Availability:** Open to Software Engineer, Full Stack Engineer, Backend Engineer, and AI Application Engineer roles; on-site, hybrid, or remote across Austria, Germany, France, Denmark, Finland, Sweedan, Switzerland and other EU countries.