

USMAN SHAH

Gen AI Engineer | AI Agents, RAG & LLM Applications | Full-Stack Development

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PROFESSIONAL SUMMARY

Gen AI Engineer at Mosaic AI, a US-based technology company, working on AI agents, RAG pipelines, and LLM-powered product features. Hands-on experience building backend services and frontend interfaces with TypeScript, Neo4j graph databases, and Temporal workflow orchestration on an enterprise application security platform. Designed and shipped multiple agent systems covering tool use, reflection, governance guardrails, persistent memory, and multi-agent communication. Software Engineering graduate with an earlier background in WordPress development and on-page SEO, comfortable taking a feature from written specification through to tested, production-ready code.

TECHNICAL SKILLS

Generative AI & Agents: AI Agent Design, Multi-Agent Systems, RAG (Retrieval-Augmented Generation), LLM Integration, Google ADK, A2A Protocol, Agent Memory & Consolidation, Agent Skills, Tool Use, Reflection Loops, Governance Guardrails, Prompt Engineering

AI Platforms & APIs: Claude & Claude Code, OpenAI API, Google Gemini, n8n Workflow Automation

Languages: TypeScript, JavaScript, Python, SQL, HTML, CSS

Backend & Data: Neo4j (Graph Databases), Temporal (Workflow Orchestration), REST APIs, JSON, Data Modeling

Frontend: React, Vite, Responsive UI Development, Component Design

Testing & Tooling: Vitest, React Testing Library, Spec-Driven Development, Git, GitHub, VS Code

Web & CMS: WordPress, Elementor, On-Page SEO, Site Performance Optimization

Cloud: AWS (EC2, S3, IAM), Cloud Security Fundamentals

PROFESSIONAL EXPERIENCE

Gen AI Engineer

Mosaic AI

Sep 2026 – Present

United States (Remote)

- Build backend services and frontend interfaces for an enterprise application security platform that analyzes customer source code and APIs end to end to detect vulnerabilities, bugs, and security risks.
- Develop platform features in TypeScript across both backend and frontend layers, working with modern web frameworks and component-based UI.
- Model and query complex relationships across large codebases using Neo4j graph databases, supporting deeper security analysis than flat data structures allow.
- Orchestrate long-running, multi-step analysis workflows using Temporal, improving reliability and fault tolerance for heavy scanning jobs.
- Apply AI agent, RAG, and LLM techniques to product features, including retrieval over large technical context and automated reasoning over scan results.
- Completed an intensive Gen AI engineering program covering agentic AI, agent memory, agent skills, spec-driven development, and multi-agent protocols, delivering seven working projects with recorded demos.

WordPress & SEO Intern

Ataraxy Developers

Dec 2025 – Apr 2026

Islamabad, Pakistan

- Developed and customized responsive WordPress websites using Elementor, HTML, and CSS for client projects.
- Implemented on-page SEO including keyword optimization, meta tag structuring, and internal linking to improve organic search visibility.
- Analyzed site performance data (traffic, rankings, page load times) and prepared client-facing reports with clear recommendations.

AI & AGENT PROJECTS

Multi-Agent System with Google ADK and A2A Protocol

Google ADK | Gemini | Python

- Built two independent agents, a Research Agent and a Summary Agent, and connected them using the Agent2Agent (A2A) protocol with RemoteA2aAgent.
- Exposed the Research Agent as an A2A server so the Summary Agent could delegate research tasks and receive structured results back.
- Verified the full end-to-end delegation flow through the ADK Developer UI, showing live agent-to-agent communication.

Agentic Analysis Tool with Reflection and Governance Guardrails

Python | Claude Code | Agentic AI

- Built a Python analysis tool that processes sales data and calculates revenue, units sold, product performance, and regional performance metrics.
- Wrapped the tool in an AI agent that generates a written business summary, then added a reflection step where the agent reviews its own output for unsupported claims.
- Implemented a governance guardrail that blocks unsafe or unsupported analysis before release, and validated it by injecting deliberately incorrect claims that were successfully caught.

Spec-Driven Smart Task Manager

React | TypeScript | Vite | Vitest

- Wrote a full specification (constitution, feature spec, and roadmap) before writing any code, then built the application against it using an AI coding agent.
- Implemented task creation, completion, deletion, search, filtering, and localStorage persistence with a clean, modern UI.
- Achieved 20/20 passing automated tests with Vitest and React Testing Library, and used an independent review subagent to catch and fix issues before final validation.

WEB DEVELOPMENT PROJECTS

Vnetrix (vnetrix.com)

WordPress | Elementor | CSS

- Worked on the website of a UK-based IT managed services and hosting provider whose clients include Universal Music UK, Glastonbury Festival, and Mott MacDonald.
- Built and customized responsive page layouts in Elementor with custom CSS, keeping the design consistent across desktop, tablet, and mobile.
- Applied on-page SEO and performance improvements across service and content pages.

Usman Anees (usmananees.com)

WordPress | Elementor | Responsive Design

- Designed and developed a responsive WordPress website with a clean, modern layout and clear content structure.
- Integrated required plugins, optimized media and page speed, and applied on-page SEO best practices.

EDUCATION

Bachelor of Software Engineering

2022 – 2026 (Graduated)

SZABIST, Islamabad

CGPA: 3.34 / 4.00

FSc (Pre-Engineering)

2020 – 2022

Edwards College, Peshawar

881 / 1100 (81%)

Matric (Science)

2018 – 2020

Cadet College Warsak, Peshawar

1007 / 1100 (91%)

CERTIFICATIONS & CONTINUOUS LEARNING

- **A2A: The Agent2Agent Protocol**, DeepLearning.AI
- **Agent Skills with Anthropic, Agentic AI & Governing AI Agents, Agent Memory & Adaptive AI Agents, Spec-Driven Development with Coding Agents**
- **AWS Cloud Practitioner (CLF-C02)**, certification preparation via Cloud Academy

LANGUAGES

English (Professional Working Proficiency) • Urdu (Native) • Pashto (Native)