

M. SHAHZAIB MINHAS

Senior Software Engineer

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Lahore, Pakistan

SUMMARY

A senior full-stack engineer with 5+ years of experience in a diverse tech stack. I have a proven track record of leading teams to deliver high-quality, scalable software solutions. My expertise extends to software architecture planning, with a recent focus on integrating advanced AI capabilities, including Agentic AI and RAG, into production applications.

TECHNICAL SKILLS

Tools & Technologies: Django, Flask, Node.js, Nest.js, Express.js, LangChain, Hugging Face, OpenAI, LLM, Flutter, React.js, MySQL, PostgreSQL, PostGIS, PgVector, MongoDB, Firebase, Redis

Programming Languages: Python, JavaScript, Typescript, Dart

EXPERIENCE

Code District

Lahore, Pakistan

Senior Software Engineer

Jan 2022 – cont.

- Developing and maintaining web applications using diverse technology stacks. Facilitating Agile/SCRUM process and leading sprint planning, stand-ups, and retrospectives to ensure team alignment and continuous improvement.
- Working with the pre-sales team for requirement gathering, feature listing, and project estimation.
- Leading code reviews and mentoring junior developers to improve code quality and maintainability.
- Conducting interviews for new hires for SE and ASE posts.
- Troubleshooting architectural challenges and performance problems to ensure optimal application performance.

Venture Studio

Dubai, UAE

Software Engineer (Remote)

Nov 2020 – Jan 2022

- Worked closely with clients to elicit requirements and design mobile applications using Flutter, Node.js backend, and software architectures.
- Collaborated with designers, project managers, and QA engineers to deliver high-quality products on time and within budget.
- Collaborated with remote teams using Slack, Jira, and video calls.

EDUCATION

COMSATS University, Islamabad

Lahore, Pakistan

MS Computer Science

Sept 2021 – Jan 2024

COMSATS University, Islamabad

Lahore, Pakistan

BS Computer Science

Sept 2016 – July 2020

NOTABLE PROJECTS [\[view more in portfolio\]](#)

Observia AI - Surveillance System [\[visit site\]](#)

2025

@ Code District

- Observia is an advanced safety software that leverages existing CCTV cameras to detect and alert potential risks in real-time.
- I am mainly involved in planning its architecture and implementing its backend for processing camera streams.
- **Tools Used:** Python, Flask, Redis, PostgreSQL, PyTorch, OpenCV, Numpy, Pandas

PSX: Barking Stock - Mobile Application [[view on Play Store](#)] 2025

@ Self-Employed (self-initiated)

- Barking Stock empowers investors with real-time stock market updates, ensuring they stay informed and make timely decisions.
- Personalised notifications guarantee that no important announcements from their favorite companies are missed.
- **Tools Used:** Python, EC2, Flutter, Firebase, FCM, Firebase Cloud Function, AWS Lambda

Pharmasift – Artificial Intelligence [[visit site](#)] 2024

@ Code District

- Pharmasift provides searchable access to all Office of Prescription Drug Promotion (OPDP) enforcement action letters, their available corresponding promotional materials, the Code of Federal Register (CFR), and guidance documents.
- We developed a document analysis tool and a chatbot utilizing the Pharmasift knowledge base to analyze promotional materials and respond to user queries using retrieval-augmented generation (RAG) techniques.
- As a Technical Team Lead, I was responsible for training my team in emerging technologies and ensuring a smooth development and deployment of the project.
- **Tools Used:** Python, LangChain, OpenAI, PostgreSQL, PgVector, AWS, Lambda, EC2, S3

Data Tools – Analytical Tool 2024

@ Code District

- A company's internal tool for managing leads. I worked on it to process the new leads data and present it with meaningful insights on the dashboard.
- **Tools Used:** Django, Numpy, Pandas, React, AntDesign

Person Re-identification for Real-World Scenarios using Deep Learning – MS Thesis 2024

@ COMSATS University

- Developed an incremental learning system for person re-identification that can easily adapt to newly arriving data while preserving previous knowledge.
- The system aims to address the challenges of handling catastrophic forgetting issues in domain transformation, accommodating evolving identities, and efficient resource utilization in person re-identification tasks.
- **Tools Used:** Python, PyTorch, OpenCV, ResNet-50

Dopple – E-Commerce Store [[visit site](#)] 2023

@ Code District

- Dopple is a Shopify store specializing in parental products, including those sourced through dropshipping from partner vendors.
- We implemented a dropshipping solution that allowed the system to communicate with partner vendors' SFTP servers via EDI (Electronic Data Interchange) files.
- This solution streamlined order placement, fulfillment, and shipment processes, significantly reducing the need for manual administrative tasks.
- **Tools Used:** Python, Django, Shopify Restful & GraphQL APIs, PostgreSQL

Health Reel – Analytical Tool [[visit site](#)] 2023

@ Code District

- Health Reel is a personal health assistant that monitors users' health and guides them toward their wellness goals.
- We equipped it with Generative AI to offer a user-friendly chat experience, allowing users to discuss their health-related concerns with the bot.
- The bot provides responses based on the user's previous health records.
- **Tools Used:** LLM, LangChain, OpenAI, Python, React, MongoDB, Amazon Cognito, AWS Lambda

Valis Bioscience – Research Platform [[visit site](#)] 2022

@ Code District

- Valis specializes in enhancing mental health, CNS, and Rare & Orphan disorder treatments through advanced measurement tools and data analysis.
- We developed their two key products: ACAM and ECOA, which are being utilized in clinical trials for data capture and analysis.

- My responsibilities included managing the Node.js backend and React.js frontend of applications, integrating features, and resolving issues for Valis partners.
- **Tools Used:** React, React Native, Angular, Node.js, MongoDB, PostgreSQL, AWS

CERTIFICATIONS [\[view more in portfolio\]](#)

Deep Learning [view] DeepLearning.AI Coursera Specialization	July 2023
Software Product Management [view] University of Alberta Coursera Specialization	Feb 2021
Flutter & Dart - The Complete Guide [view] Academind Udemy Specialization	Dec 2020
Developing Applications with Google Cloud Platform [view] Google Cloud Coursera Specialization	Sept 2020

ADDITIONAL

Professional Skills: Software Development, Project Management, Logic Building, Software Design/Architecture, Database Design, Requirement gathering, Documentation

Personal Skills: Team Player, Leadership, Communication, Self Learning