M. SHAHZAIB MINHAS

Senior Software Engineer

+92 331 4783069
mshahzaib1629@gmail.com
linkedin.com/in/mshahzaib1629
shahzaibminhas.com
Lahore, Pakistan

SUMMARY

An experienced Software Engineer with 5+ years in full-stack development. I am deeply interested in designing solutions to complex problems. In my recent projects, I have applied Agentic AI and RAG techniques to integrate generative AI into software products. I have a proven track record in leading teams and delivering high-quality projects.

TECHNICAL SKILLS

Tools & Technologies: PyTorch, OpenCV, Numpy, Pandas, Django, OpenAI, LLM, LangChain, Hugging Face, Node.js, Nest.js, Express.js, AWS, Lambda, EC2, S3, Flutter, React.js, Angular, MySQL, PostgreSQL, PostGIS, PgVector, MongoDB, Firebase

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

SOME 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

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.

- Personalized 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

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 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

Crowd Counting P2PNet – Research Work [visit codebase] 2022
@ COMSATS University
- Point-to-Point Network (P2PNet) is a framework to count the number of people in a crowd.
- The original paper was published by Qingyu Song in 2021. I've added an API endpoint to the model and used it with a custom React application in a semester project.
- **Tools Used:** Pytorch, VGG16, Python, React

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]   July 2023
DeepLearning.AI | Coursera | Specialization

Software Product Management [view]   Feb 2021
University of Alberta | Coursera | Specialization

Flutter & Dart - The Complete Guide [view]   Dec 2020
Academind | Udemy | Specialization

Developing Applications with Google Cloud Platform [view]   Sept 2020
Google Cloud | Coursera | Specialization

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