

Amar Sohail

Engineering Leader • AI/ML • Backend • DevOps

Dubai, UAE

dr.amar.sohail@gmail.com

+92 304 9268347

amarsohail.com

linkedin.com/in/amarsohail

github.com/digitalinnovator

PROFESSIONAL SUMMARY

Engineering leader with 10+ years of experience building scalable backend systems, ML pipelines, and cloud infrastructure. Specialized in generative AI, agentic AI systems, and MLOps — turning research into reliable, deployed products. Proven track record across 80+ projects for 70+ clients spanning backend engineering, AI/ML, and DevOps. Published researcher in IoT security with a merit-based full-scholarship MS degree.

PROFESSIONAL EXPERIENCE

Senior AI Engineer (Part-time)

2024 – Present

[AllysAI, USA](#)

Lead AI transformation initiatives from strategy to implementation. Architect and deploy production-grade AI/ML solutions, agentic AI systems, and multi-agent orchestration pipelines for enterprise clients. Drive end-to-end AI adoption including RAG architectures, LLM fine-tuning, and AI workflow automation.

Python, LangChain, PyTorch, CrewAI, LangGraph, Claude Code, MCP, n8n, AWS, Kubernetes, Terraform

Tech Lead

2022 – 2024

[Hyves.co, UAE & France](#)

Led the engineering team building a social commerce platform. Architected scalable backend services, managed deployment pipelines, and drove technical decisions across the product lifecycle. Integrated LLMs and RAG pipelines for intelligent product recommendations and search. Built AI workflow automation with n8n and third-party API integrations.

Node.js, React, PostgreSQL, Docker, AWS, REST APIs, CI/CD, n8n, LangChain, RAG, LLMs

Engineering Lead

2020 – 2022

[Giisty, Dubai](#)

Spearheaded technical strategy and led cross-functional engineering teams across backend, AI/ML, and cloud infrastructure. Architected production-grade microservices on Kubernetes (EKS), designed RAG pipelines with LangChain and vector databases, and deployed LLMs to production. Established GitOps CI/CD workflows, infrastructure as code with Terraform, and observability with Prometheus and Grafana.

Python, LangChain, PyTorch, Kubernetes, Terraform, AWS, Docker, PostgreSQL, Redis, Kafka

Backend Engineer

2018 – 2020

[Digital Innovation \(PVT\) Ltd, Lahore](#)

Designed and built RESTful APIs and event-driven microservices handling 100K+ daily requests. Implemented OAuth 2.0 authentication, role-based access control, and data encryption pipelines. Led database architecture with PostgreSQL and MySQL, optimizing query performance by 40%. Mentored junior engineers on clean architecture and SOLID principles.

Software Engineer

2016 – 2018

University of Central Punjab

Built and modernized full-stack web applications, migrating legacy PHP codebases to Laravel MVC architecture. Developed RESTful APIs consumed by mobile and web clients. Implemented automated testing, CI/CD pipelines, and version control workflows. Collaborated on system design for student management platforms serving 10K+ users.

PHP/Laravel, JavaScript, Node.js, jQuery, MySQL, REST APIs, Git, Linux, Nginx

EDUCATION

MS Computer Science (Full Scholarship)

2016 – 2019

COMSATS University Islamabad, Lahore Campus

Merit-based full scholarship. Research published in PLOS ONE. Focus areas: Cybersecurity, Simulation & Modelling, Data Mining.

BS (Hons) Software Engineering

2011 – 2015

Government College University Faisalabad

Software Project Management, Computer Programming, Database Management Systems, Web Engineering, Data Structures & Algorithms, Artificial Intelligence.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, Go, Solidity

Backend: Spring Boot, Django, FastAPI, NestJS, Express.js, Laravel

AI/ML & LLMs: TensorFlow, PyTorch, LangChain, LlamaIndex, Hugging Face, OpenAI API, RAG, Fine-tuning, MLflow, Pinecone, Whisper

Agentic AI: CrewAI, LangGraph, AutoGen, OpenAI Swarm, Claude Code, MCP, n8n, Multi-Agent Orchestration

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

DevOps & Cloud: Docker, Kubernetes, Terraform, AWS, Azure, GCP, Jenkins, GitLab CI/CD, ArgoCD, Prometheus, Grafana

Architecture: Microservices, Event-Driven, Kafka, GraphQL, gRPC, WebSockets, Distributed Systems

Web3: Solidity, Rust, Ethereum, Solana, Polygon, Hardhat, Web3.js, Ethers.js

CERTIFICATIONS

IBM RAG and Agentic AI Professional Certificate

June 2025

Generative AI with Large Language Models

March 2024

Google Cloud Professional Architect

September 2023

AWS Certified Cloud Practitioner

April 2018

PUBLICATIONS

Formal Modeling of IoT Routing Protocol Security Using Colored Petri Nets

Published in *PLOS ONE* — novel approach to verifying RPL protocol vulnerabilities in IoT environments using

colored Petri nets. First-of-its-kind research in formal IoT routing security modeling.
doi.org/10.1371/journal.pone.0285700

KEY PROJECTS

Giisty — AI-powered platform (AI & ML)

HYVES — Social commerce platform (Web3)

Just Eat — Food delivery platform (Web3)

Salt'n Pepper — Restaurant chain (Backend)

KeyPact PQ-Mail Proxy — Post-quantum email encryption (Innovation)

Harry AI — AI hiring assistant (AI & ML)

Gold Bank London — Financial platform (DevOps)

Asurint — Background screening (DevOps)

TWOBIRDS Bridal — E-commerce (DevOps)

QKSMS — Messaging app backend (Backend)

NOTABLE ACHIEVEMENTS

- Sole architect of **KeyPact PQ-Mail Proxy** — first-of-its-kind post-quantum cryptography email proxy specification
- Published novel IoT security research in **PLOS ONE** (peer-reviewed international journal)
- Completed MS on **merit-based full scholarship** — recognized for academic excellence
- Delivered **80+ projects** for **70+ clients** across backend, AI/ML, and cloud infrastructure
- Scaled Kubernetes clusters running **200+ microservices** in production