

SYED ZEESHAN AZHAR

AI Engineer and Backend Developer

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Professional Summary

Early-career AI engineer and backend developer with internship experience at Systems Limited, Code Ninety, and DeveloperHub Corporation. Built an agentic Text-to-SQL workflow for a 65-table PostgreSQL database, a Meta-connected CRM, and an AI interview platform. Works across Python APIs, relational data, background jobs, retrieval workflows, and Next.js interfaces. Founder of StackSmith Labs, delivering web platforms and internal business software for clients.

Experience

AI Engineer Intern

Mar 2026 - Present

Systems Limited

- Developed Autonomous Data Analyst, an agentic Text-to-SQL system that turns natural-language questions into validated analytical queries for a 65-table PostgreSQL database.
- Profiled tables, columns, relationships, and embeddings with SQLAlchemy, then used pgvector and relationship expansion to retrieve the tables, bridge tables, and join fields needed for each request.
- Built a LangGraph and LangChain workflow for question cleanup, SQL generation, validation, execution, and recovery when the first query failed.
- Reduced the schema context sent to the model to roughly 1,500 tokens per query for a 65-table database through semantic retrieval, relationship expansion, schema refinement, and deterministic context budgeting.
- Connected FastAPI query and streaming endpoints to a Next.js workspace displaying SQL, results, charts, progress, and failure details.

Founder and Freelance Full-Stack Developer

2024 - Present

StackSmith Labs

Remote

- Founded StackSmith Labs to deliver web, AI, and business systems from requirements through deployment and support.
- Built and maintain two live legal-service platforms that generated 35.1K Google Search impressions and 257 organic clicks over three months; added a firm-information AI assistant for Touseef Shafique & Co.
- Developing a proprietary multi-tenant payroll and HR platform with Laravel 11 and PHP, covering employee records, payroll, statutory calculations, loans, reports, payslips, and audit activity.

Full Stack Developer Intern

Jan 2026 - Mar 2026

Code Ninety

Islamabad

- Designed the first automated Instagram lead-capture workflow, covering an estimated 70-100% of eligible messages and preserving ad and post attribution through the `ig_sid` reference.
- Built the FastAPI CRM for contacts, conversations, ownership, status, and follow-up activity; added idempotency and retry state so duplicate or failed webhook events could be recovered.
- Moved lead processing, Meta conversion feedback, and audit writes to Celery and Redis, keeping external calls outside API request paths.
- Added role-aware CRM operations, staff administration, notifications, WebSocket updates, and a Next.js lead inbox.
- Integrated Meta Graph and Conversion APIs to record payment outcomes and send conversion feedback.

Backend Developer Intern

Jul 2025 - Oct 2025

DeveloperHub Corporation

- Built FastAPI REST endpoints and backend business logic for data-intensive client applications used by Next.js interfaces.
- Designed and refined PostgreSQL schemas and queries for assigned features.
- Managed GitHub branches and ClickUp sprint tasks; received a recommendation and completion certificate for delivery and teamwork.

Selected Projects

Autonomous Data Analyst | [GitHub](#)

Python, FastAPI, LangGraph, LangChain, PostgreSQL, pgvector, SQLAlchemy, Next.js, TypeScript

Built an agentic Text-to-SQL system for a 65-table PostgreSQL database. Offline profiling, semantic retrieval, relationship expansion, and context budgeting reduced the schema context supplied to the model to roughly 1,500 tokens per query while retaining the tables and joins needed for SQL generation.

EchoHire — AI Interview Platform | [GitHub](#) | [Model](#)

FastAPI, Next.js, PostgreSQL, pgvector, Celery, Redis, Transformers, PyTorch, Docker

Created candidate and recruiter workflows for job discovery, applications, interview preparation, and applicant review. Fine-tuned DistilGPT-2 on about 100 job profiles with 17–19 questions each; the published model achieved 0.878 BERTScore F1 on a 10-example evaluation subset.

Meta Lead Operations CRM | [Frontend](#) | [Backend](#)

FastAPI, Next.js, TypeScript, PostgreSQL, SQLAlchemy, Redis, Celery, WebSockets, Meta APIs

Built at Code Ninety to capture an estimated 70–100% of eligible Instagram messages that previously had no structured lead path. Used `ig_sid` to retain ad and post attribution, then added idempotent webhook handling, retries, ownership queues, audit records, live inbox updates, payment tracking, and conversion feedback.

Multi-Tenant Payroll and HR Management System — Proprietary Client Software

PHP, Laravel 11, Blade, Eloquent ORM, MySQL, Bootstrap, Dompdf, Laravel Excel

Developing a private business system for multiple companies, with tenant-separated employee records, departments, earnings, deductions, payroll periods, statutory calculations, loans, and payslips. It also provides role-based workflows, activity logs, reporting, and PDF and Excel exports; source code is not publicly available.

StackSmith Labs — Brand and Portfolio Platform | [Live Site](#)

Next.js, TypeScript, Tailwind CSS

Built the public site for my software, AI, automation, and data-engineering brand. It presents service areas, selected work, project details, client feedback, and a structured route for new project enquiries.

Touseef Shafique & Co. Legal Platform | [Live Site](#)

Next.js, TypeScript, Tailwind CSS, Python

Delivered a responsive law-firm platform with a firm-information AI assistant. During a three-month Google Search Console window, the site recorded 13.5K impressions, 200 organic clicks, a 1.5% click-through rate, and an average search position of 4.5.

Salahuddin Abbasi Advocate Website | [Live Site](#)

Next.js, TypeScript, Tailwind CSS

Developed and deployed a legal-services website with practice-area pages, profile content, consultation routes, and mobile navigation. During a three-month Google Search Console window, it generated 21.6K impressions and 57 organic clicks, with an average search position of 3.6.

Technical Skills

Backend and data: Python, FastAPI, REST APIs, PHP, Laravel, PostgreSQL, MySQL, SQLAlchemy, Eloquent ORM, pgvector, MongoDB, data modelling, query optimisation

AI engineering: LangGraph, LangChain, LangSmith, LlamaIndex, agentic workflows, Text-to-SQL, RAG, embeddings, prompt engineering, MCP

Machine learning: Scikit-learn, Transformers, supervised learning, regression, classification, feature engineering, model evaluation

Application development: Celery, Redis, WebSockets, webhooks, Meta APIs, JavaScript, TypeScript, Next.js, React, Tailwind CSS, Blade, Bootstrap

Tools and practices: Docker, Git, GitHub, Linux, AWS fundamentals, Claude Code, specification-driven development, testing, code review, technical documentation

Education

Bachelor of Science in Computer Science
Bahria University Islamabad

Jan 2022 - Sep 2025
CGPA: 3.09

Certifications and Training

MCP: Build Rich-Context AI Apps with Anthropic — DeepLearning.AI

Built MCP-based connections that give AI applications controlled access to external tools, resources, prompts, and data.

Agentic AI — DeepLearning.AI

Developed iterative agent workflows using reflection, tool use, planning, multi-agent collaboration, and evaluation.

Generative AI for Software Development — DeepLearning.AI

Applied language models to coding, testing, code improvement, technical documentation, and software design.

AI-Powered Software and System Design — DeepLearning.AI

Used LLMs to examine architecture choices, database models, design patterns, and system trade-offs.

Team Software Engineering with AI — DeepLearning.AI

Used AI for test development, debugging, documentation, and resolving dependency and version conflicts.

Introduction to Generative AI for Software Development — DeepLearning.AI

Practised AI pair programming, prompt writing, code review, refactoring, and checking generated code before use.

Claude Code: A Highly Agentic Coding Assistant — DeepLearning.AI

Used Claude Code to explore codebases, plan features, write tests, debug problems, and refactor existing code.

Spec-Driven Development with Coding Agents — DeepLearning.AI

Turned project rules and feature requirements into implementation plans, agent tasks, and validation steps.

AWS AI Practitioner Challenge — Udacity

Covered AI, machine learning, generative AI use cases, responsible AI, and application building with AWS PartyRock.

Python Course for Beginners: Mastering the Essentials — Scaler

Strengthened Python fundamentals through functions, control flow, data structures, and exception handling.

AWS Academy Graduate — AWS Academy Cloud Foundations — Amazon Web Services

Studied cloud concepts, AWS core services, security, architecture, pricing, and support models.

Responsive Web Design — freeCodeCamp

Built responsive and accessible pages with semantic HTML, CSS, Flexbox, Grid, and media queries.