HASNAIN ABBAS

Software Engineering Intern | Backend Developer | Mobile App Developer | AI/ML

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LinkedIn · GitHub · My Portfolio

PROFESSIONAL SUMMARY

Computer Science graduate from Riphah International University Islamabad, Campus Lahore, with strong hands-on experience in Python, FastAPI, Flask, REST APIs, PostgreSQL, MySQL, Flutter, and AI/ML development. Designed and built HomeHarvest AI — a complete end-to-end AI-powered plant disease detection mobile application — as a Final Year Project, covering deep learning with TensorFlow and CNN, Python Flask REST API backend, Flutter/Dart cross-platform mobile frontend, Firebase authentication, MySQL database integration, real-time image classification, chatbot assistant, and e-commerce functionality. Proficient in OOP, software design patterns, Agile methodologies, Git, and Visual Studio Code. Backed by 21+ months of professional experience in data research, web intelligence, lead generation, e-commerce data management, and financial operations. Currently working at Full Stack Zone Private Limited, Rawalpindi, on live production-level client projects in Python backend, REST APIs, and mobile development.

PROFESSIONAL EXPERIENCE

Software Engineering Intern
Sep 2026 – Present

Full Stack Zone Private Limited — Bahria Town, Rawalpindi, Pakistan

- Developing Python backend applications using FastAPI, Flask, and REST API design principles
- Working with PostgreSQL and MySQL for data modelling, schema design, and query optimisation
- Building and integrating RESTful APIs for web and mobile applications on live client projects
- Developing cross-platform mobile applications using Flutter and Dart
- Gaining hands-on exposure to AI/ML integration in real-world production-level projects
- Collaborating in a team-based development environment; building a professional GitHub portfolio

Accountant & Cashier
May 2025 – Apr 2026

Lahori Restaurants — Lahore, Pakistan

- Managed daily cash counter operations, processed customer transactions accurately, and maintained end-of-day reconciliation records
- Maintained financial records including sales logs, expense tracking, and invoice documentation for accurate bookkeeping
- Handled accounts payable and receivable, petty cash monitoring, and daily financial summaries for management review
- Coordinated with kitchen and service staff to ensure smooth billing workflows and resolve payment discrepancies

Research & Data Entry Specialist | Web Researcher
Nov 2023 – Aug 2024

Marketing SIP Company — Lahore, Pakistan

- Performed data entry, validation, and QA for large-scale structured datasets maintaining above-industry accuracy
- Conducted systematic web research and competitive intelligence gathering from 5+ major e-commerce platforms: Amazon, eBay, Walmart, Etsy, and Alibaba
- Managed and cleaned product catalogs containing thousands of SKUs, improving data consistency and retrieval efficiency
- Produced structured reports and datasets supporting digital marketing and content management campaigns
- Collaborated with cross-functional teams to meet tight deadlines with strong organisational and time-management skills

EDUCATION

Bachelor of Science in Computer Science (BS CS)	**Riphah International University Islamabad, Campus Lahore**	**2022 – 2026**
Intermediate in Computer Science (ICS)	**Govt. Degree College Shujabad**	**2020 – 2022**
Matriculation in Science Group	**Govt. High School Jahan Pur, Jalalpur Pirwala**	**2017 – 2019**

TECHNICAL SKILLS

Programming Languages	Python, Java, C++, JavaScript, Dart
Backend Development	FastAPI, Flask, Node.js, REST APIs, Express.js
Mobile Development	Flutter (Dart), Cross-Platform Development
AI / Machine Learning	TensorFlow, CNN, Machine Learning
Databases	PostgreSQL, MySQL, Database Design & Normalization, CRUD Operations
Frontend	HTML5, CSS3, JavaScript, Bootstrap 5, Responsive Web Design
Software Engineering	OOP, Data Structures & Algorithms, SDLC, Agile, MVC, Software Design Patterns
Tools & Version Control	Git, GitHub, Visual Studio Code

PROJECTS

HomeHarvest AI – Plant Disease Detection Mobile App (Final Year Project)

Tech Stack: Flutter · Python · Flask · TensorFlow · CNN · MySQL · REST API · Firebase

- Engineered an AI-powered mobile application detecting plant diseases from leaf images using a CNN model trained with TensorFlow
- Built a Python Flask REST API backend handling image uploads, model inference, and JSON response delivery to the Flutter app
- Developed complete Flutter/Dart mobile frontend — image capture, API integration, disease results display, and user management
- Integrated MySQL for plant data, disease records, and user scan history; implemented chatbot, e-commerce, payment gateway, and admin panel
- Firebase authentication for secure user management across the platform

Hospital Appointment & Management Portal

Tech Stack: Python · FastAPI · PostgreSQL · HTML5 · CSS3 · JavaScript · Bootstrap 5

- Role-based web portal supporting Admin, Doctor, Receptionist, and Patient — each with dedicated dashboards and permissions
- Python FastAPI backend with PostgreSQL; server-rendered HTML/CSS/JS frontend with Bootstrap 5 custom visual design
- Core features: appointment booking, doctor scheduling, patient records, receptionist workflow, and admin control panel

Inventory Management System

Tech Stack: Java · MySQL · JDBC · Java Swing

- Desktop application for real-time inventory tracking, stock alerts, purchase order management, and reporting
- Applied OOP principles and MVC design pattern; JDBC for MySQL database connectivity

Online Education System

Tech Stack: Node.js · Express · HTML5 · CSS3 · JavaScript · MySQL

- Full-stack web platform: course creation, student enrollment, assignment submission, and progress tracking
- RESTful API endpoints with Node.js/Express; responsive frontend with HTML5, CSS3, and vanilla JavaScript

Pharmacy Management System

Tech Stack: C++ · File Handling · Data Structures

- Console-based app for medicine inventory, supplier records, sales, and automated billing using custom data structures and file I/O

Digital E-Wallet & Online Transaction App

Tech Stack: Flutter · Dart · Firebase · MySQL · Node.js

- Developed a fully functional digital e-wallet mobile application featuring a complete online transaction ecosystem
- Implemented secure wallet-to-wallet transfers, transaction history, balance management, and user authentication via Firebase
- Built Flutter/Dart frontend with Node.js backend and MySQL database for persistent transaction records

CERTIFICATIONS

Coursera

• Introduction to Software Engineering
• Object-Oriented Programming in Java | Object-Oriented Data Structures in C++
• Introduction to Front-End Development
• Responsive Website Basics: Code with HTML, CSS, and JavaScript
• Linux: Processes & System Resource Management for DevOps

Cisco Networking Academy (NetAcad)

• Introduction to TCP/IP
• Data Forwarding Across Computer Networks
• Operating Systems – Basics