

MUHAMMAD IRFAN

Software Engineer | AI Engineer | Python Developer

Faisalabad, Punjab, Pakistan | +92-300-7147155 | m.irfan.aiengineer@gmail.com
linkedin.com/in/muhamma-d-irfan-011120179

Professional Summary

Software Engineer and AI Engineer with 3+ years of industry experience building Python-based AI solutions, data pipelines, backend applications, automation workflows, and production-oriented software. Strong foundation in Python, software engineering, machine learning, computer vision, and backend development, with recent hands-on work building and deploying modern web application prototypes and business-focused digital products. BS Software Engineering graduate with a 3.71/4.00 CGPA. Seeking Software Engineer, Python Developer, Backend, Full-Stack, Automation, or AI Engineering opportunities.

Technical Skills

Programming: Python, JavaScript/TypeScript, SQL

Backend & APIs: Django, REST APIs, Python Backend Development, Database Integration

AI & Machine Learning: Machine Learning, Deep Learning, Computer Vision, NLP, Generative AI, LLMs, RAG, OCR

Web Development: React, Next.js, Tailwind CSS, Responsive Web Development

Data & Visualization: Pandas, NumPy, Plotly, Dash, Seaborn

Frameworks & Libraries: PyTorch, TensorFlow, Scikit-learn, OpenCV, EasyOCR

Cloud & Development: AWS, Git, GitHub, Docker, Vercel

Development Practices: API Integration, Data Pipelines, Automation, AI-Assisted Development, Rapid Prototyping

Professional Experience

AI Engineer

Jun 2021 – Oct 2024

AI4LYF – Lahore, Pakistan

- Developed and optimized machine learning and deep-learning solutions using Python, PyTorch, TensorFlow, and Scikit-learn for real-world applications.
- Built a Pix2Pix GAN-based image reconstruction system, experimenting with MAE, VGG, content, and classifier-based loss functions for imaging enhancement.
- Developed CNN-based multiclass and multilabel classification models using hybrid real and GAN-generated datasets and evaluated the reliability of synthetic training data.
- Built interactive data and biomarker monitoring dashboards using Python Dash, improving reporting and visual analysis workflows.
- Automated document digitization and data extraction using OpenCV, EasyOCR, and AWS Textract, reducing manual data-entry requirements.
- Developed machine-learning models using XGBoost and ExtraTrees for biomedical audio classification across four clinical conditions.
- Designed and led a data collection framework containing 20K+ validated samples, including backend application design, validation workflows, and team training.
- Worked across the complete development lifecycle from data preparation and experimentation through model development, evaluation, and application integration.

Web Developer Intern

Sep 2020 – Mar 2021

DigiSol – Lahore, Pakistan

- Contributed to web development projects using Laravel and Magento.
- Worked on application functionality, frontend integration, and web development tasks within a professional development environment.

AI Intern

Jan 2021 – Feb 2021

DL Lab, KICS, UET Lahore

- Supported machine-learning and AI research projects.

- Worked with data preparation, model experimentation, and implementation of machine-learning concepts.

Data Analytics / AI Intern

Oct 2020 – Dec 2020

KICS, UET Lahore – Lahore, Pakistan

- Worked on data analytics and machine-learning related tasks.
- Developed an interactive regression dashboard using Django, supporting data visualization and model evaluation.

Independent Software & AI Development

Oct 2024 – Present

Independent Software & AI Projects

- Built and deployed multiple software and web application prototypes across real estate, education, healthcare, retail, restaurants, and manufacturing/packaging.
- Developed modern responsive web experiences and business-focused application concepts using AI-assisted development workflows.
- Built property discovery, school portal, ecommerce, restaurant, clinic, and corporate website prototypes with interactive user experiences.
- Used modern development workflows including GitHub, Vercel, and AI-assisted coding tools for rapid product prototyping and iteration.
- Explored AI-powered product development, automation, and modern web application architecture while continuing professional technical development.

Selected Projects

Faisalabad Property Discovery Platform

Real-estate platform concept featuring property discovery, residential/commercial filtering, project showcases, locations, payment plans, amenities, and lead-generation workflows.

Smart Cash & Carry

Modern supermarket/ecommerce web experience focused on product discovery, responsive design, interactive shopping flows, and premium user experience.

School Management Platform

Modern school website and portal concept covering parent, student, and teacher experiences with responsive interfaces and interactive workflows.

Packaging Company Digital Experience

Premium corporate website concept for a packaging business featuring product presentation, interactive visual elements, 3D-oriented experiences, and lead-generation sections.

Additional Prototypes

Restaurant Website Demo | Clinic Website Demo.

Education

BS Software Engineering

2014 – 2019

The University of Lahore

CGPA: 3.71 / 4.00

Continuous Learning (AWS)

- AWS Artificial Intelligence Practitioner Learning Plan
- Introduction to Amazon SageMaker
- Amazon Bedrock: Getting Started
- Planning a Generative AI Project
- Foundations of Prompt Engineering

Additional Information

Location: Punjab, Pakistan | **Availability:** Available for full-time opportunities

Target Roles: Software Engineer, Python Developer, Backend Developer, Full-Stack Developer, Automation Engineer, AI Engineer