MUHAMMAD FAIZAN RAZA

AI Engineer | Python Backend & Applied AI Developer

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Portfolio mrfaizan-dev.vercel.app | **GitHub** github.com/mrfaizan-dev | **LinkedIn** linkedin.com/in/mrfaizan-dev

PROFESSIONAL SUMMARY

Python Backend and Applied AI Developer who designs and ships complete AI systems end to end: LangGraph multi-agent workflows, hybrid RAG pipelines, LLM-powered structured extraction, and multi-engine web automation. Builds on FastAPI, Celery/Redis, vector databases, and Pydantic, with a focus on source-grounded outputs, validated data, and resilient background processing. Independently architected and delivered four complete projects.

TECHNICAL SKILLS

Backend & Infrastructure:	Python, FastAPI, Pydantic v2, Asyncio, REST APIs, Redis, Celery, Docker, Git/GitHub
Agentic AI & LLMs:	LangGraph, LangChain, LlamaIndex, CrewAI, Model Context Protocol (MCP), Multi-Agent Workflows, Prompt Engineering, Structured Outputs; OpenAI, Claude, Gemini, Groq, OpenRouter, Cohere
RAG & Retrieval:	ChromaDB, FAISS, Embeddings, Semantic Search, BM25, Hybrid Retrieval, CRAG, Cohere Reranking, Source-Grounded Responses
Evaluation & Safety:	Langfuse, AI Guardrails, Schema Validation
Automation & Data:	Playwright, Selenium, SeleniumBase, Nodriver, BeautifulSoup4, Tavily API, Proxy Rotation; Pandas, Excel/CSV Reports
Frontend Integration:	Next.js, React, Tailwind CSS (AI-assisted UI development and API integration)

SELECTED PROJECTS

Autonomous RFP Pipeline | Agentic AI • Proposal Automation

GitHub | Demo Video

- Built a LangGraph **Analyst, Writer, and Critic** workflow that turns public RFP and tender URLs into tailored, evidence-grounded proposal drafts, using portfolio RAG on ChromaDB, independent AI critique and revision cycles, and checkpointed state.
- Added a human-in-the-loop approval checkpoint so every draft is reviewed before approval; Celery and Redis run extraction and generation outside the API request cycle.

Stack: Python, FastAPI, LangGraph, LangChain, LlamaIndex, ChromaDB, Playwright, SeleniumBase, Celery, Redis, Docker

Enterprise RAG AI | Hybrid Retrieval • Document Intelligence

GitHub | Demo Video

- Engineered **hybrid retrieval** over PDF, TXT, and CSV files: Gemini embeddings with session-specific ChromaDB storage, BM25 keyword search, and Cohere reranking to improve the context passed to the LLM.
- Integrated LlamaIndex ContextChatEngine with Groq for source-cited conversational answers with memory; FastAPI backend with optional Celery/Redis processing.

Stack: Python, FastAPI, LlamaIndex, ChromaDB, BM25, Google Gemini, Groq, Cohere Rerank, Pandas, Celery, Redis, Docker

CogniPulse AI Market Intelligence | Autonomous Web Research

GitHub | Demo Video

- Designed a LangGraph **Searcher, Scraper, and Finalizer** workflow that converts natural-language queries into structured Markdown intelligence reports, using Tavily for discovery and OpenRouter LLMs for extraction validated by Pydantic v2.
- Engineered multi-engine browser retrieval (SeleniumBase, Playwright, Nodriver) with automatic fallbacks, timeouts, and process cleanup; asyncio-controlled LLM concurrency, Celery/Redis tasks, and JSON/Markdown export.

Stack: Python, FastAPI, LangGraph, OpenRouter, Tavily, Playwright, SeleniumBase, Nodriver, Pydantic v2, Celery, Redis, Docker

Natural Scraping AI | Intelligent Web Scraping • Structured Extraction

GitHub | Demo Video

- Developed an asynchronous scraping platform with **12 site-specific** e-commerce and real estate parsers, multi-engine browser automation (Playwright, SeleniumBase, Nodriver), and a three-tier extraction fallback workflow.
- Built the data pipeline end to end: BeautifulSoup4 extraction, Pydantic v2 validation, Pandas data cleaning, automated Excel and CSV reports, Celery/Redis task tracking, and a monitoring dashboard.

Stack: Python, FastAPI, Playwright, SeleniumBase, Nodriver, BeautifulSoup4, Pydantic v2, Pandas, Celery, Redis, Docker

Additional work: voice agents and advanced AI assistant-style systems.

EDUCATION & TRAINING

Intermediate of Computer Science (ICS)

2024 – 2026

Graduate College, Pakistan | BISE Bahawalpur | A Division

AI Using Python

DigiSkills.pk | 3-Month Course | Result: 96%

Self-Directed Learning: Alongside my formal studies, I developed my core expertise in Python, backend engineering, and Applied AI through dedicated self-study and hands-on project building.

LANGUAGES

English, Urdu