

Fatima Mir

AI Engineer | Backend Developer

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Summary

Driven **BS-IT graduate** with **1.5 years of experience** in cutting-edge AI, specializing in **deep learning, computer vision, NLP, and data mining**. Proven ability to **develop and deploy innovative, AI-driven solutions**. Passionate about building intelligent systems and pushing the boundaries of machine learning and AI.

Professional Experience

AI Engineer | FireFly Tech. Solutions *Islamabad, Pakistan | Aug 2024–Present*
Focused on multi-agent AI systems, RAG, and domain-specific chatbots, including backend development in Python and Node.js, deployment, and ongoing maintenance.

AI/ML Engineer Intern | Funsol Technologies (Pvt.) Ltd. *Islamabad, Pakistan | Feb 2024–Jul 2024*
Contributed to AI solutions, including document QA systems, face recognition pipelines, object detection models, and large-scale voice cloning projects.

Web Front-End Developer Intern | SOFTOO, Brillanz Group *Islamabad, Pakistan | June–July 2022*
Contributed to web development and responsive UI/UX enhancements.

Projects

[AI Attorney](#) – Pakistan Legal Chatbot | FireFly Tech. Solutions

- Built a legal chatbot using **langchain, OpenAI, FAISS, Whoogle, Redis, and BM25** vector stores with embeddings of ~200k cases/statutes.
- Implemented multi-agent query classification** for legal advice, precedent search, and statute lookup.
- Enabled **automatic generation** of legal drafts and templates for lawyers.
- Integrated TTS/STT pipelines using Whisper, reducing latency by ~40%.
- Deployed system via FastAPI and Docker with a **Whoogle container for web search**, achieving 95% relevance in retrieval-based answers.

CMontheGo – AI Marketing Assistant | FireFly Tech. Solutions

- Developed a multi-agent marketing assistant performing automated SEO, website, and social media audits
- Collected marketing data using web scrapers and platform APIs
- Generated actionable recommendations via LLM-based summarization.

Chat with PDF – Document Q&A System | Funsol Technologies

- Built a RAG-based chatbot allowing natural language queries on PDF documents
- Implemented Hugging Face Transformers and OpenAI APIs, improving answer relevance by ~30%.

Voice Cloning – Celebrity Voice Models | Funsol Technologies

- Trained 50+ voice models of famous personalities by extracting audio data from YouTube.
- Processed and cleaned voice datasets for high-quality training.
- Used **Applio** locally to train models for accurate voice cloning.
- Enabled text-to-speech generation in the cloned voices for AI applications

AI Gallery – Face Recognition Photo Organizer | Funsol Technologies

- Clustered and tagged photos using face recognition models.
- Optimized face embedding pipelines, achieving >90% accuracy with deepface (**facenet-512**).

Object Recognition Models | Funsol Technologies

- Fine-tuned YOLOv5 on a custom object detection dataset to detect domain-specific objects.

Technical Skills

Core AI/ML: Deep Learning, Computer Vision, Vector Databases, NLP, Data Mining, LLMs, RAG, Fine-Tuning, Model Training

Backend & DevOps: SQL, Docker, Flask, Node.js, Python, TypeScript

ML/DS Tools: OpenCV, NumPy, PyTorch, TensorFlow, NLTK, LangChain, OpenAI API, Hugging Face, Ultralytics (YOLOv8), Roboflow, Deepface

Version Control: Git

Education

BS in Information Technology

Quaid-i-Azam University, Islamabad

2019-2023

CGPA:3.3/4