

TAIBA KHAN FARIDI

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PROFESSIONAL SUMMARY

AI Engineer experienced in developing production-grade AI systems using Python, FastAPI, Django, PostgreSQL, and modern LLM frameworks. Skilled in building agentic AI systems, multi-tenant machine learning platforms, AI business intelligence agents, healthcare search platforms, and clinical AI applications integrating NLP, computer vision, and REST APIs. Experienced in designing scalable backend architectures, data pipelines, model deployment, and intelligent AI-powered agent workflows.

TECHNICAL SKILLS

Agentic AI & LLMs: LangChain, LangGraph, Agentic Workflows, Multi-Agent Systems, MCP (Model Context Protocol), Prompt Engineering, LLM Routing, Tool-Calling Workflows, Observability & Traceability

ML & Deep Learning: TensorFlow, Keras, CNN, Grad-CAM Image Analysis, Feature Engineering, LTV Modeling, Fraud Detection, Cost Optimization Modeling

Backend & APIs: FastAPI, Django, REST APIs, ChromaDB, PostgreSQL, n8n

Cloud & Tools: Azure AI, MS Copilot Studio, Git, GitHub, Postman, VS Code, Cursor, Jupyter Notebook

Languages: Python, JavaScript, React, HTML, CSS, SQL

Data & Analytics: Power BI, Data Analysis, Business Insights Reporting, Forecasting

PROFESSIONAL EXPERIENCE

AI Engineer | Tecpinion, Indore, India (On-site)

Jul 2025 – Present

MedScan Global — AI Healthcare Search Platform (Ongoing)

- Building an AI-powered healthcare search platform using FastAPI and Groq LLM, enabling natural language discovery of hospitals, doctors, and treatments.
- Developing scalable ETL and web scraping pipelines to process healthcare data into PostgreSQL.
- Implementing semantic search, intelligent comparison, and healthcare recommendation features backed by Redis caching and AI-powered search APIs.
- Designing relational healthcare databases linking hospitals, doctors, specialties, and treatments to power intelligent recommendations.

Oncology Precision Platform — AI Clinical Decision Support

- Architected a multi-model AI system for AJCC 8th Edition cancer staging across 4 cancer types (breast, lung, prostate, colorectal) using deterministic and LLM-based fallback layers.
- Engineered Grad-CAM heatmap visualization on medical imaging outputs across all 4 cancer types, enabling interpretable tumor localization with confidence scoring for clinical review.
- Designed an LLM cost optimization model routing queries between lightweight and heavyweight models by task complexity — reducing token spend without degrading output quality.
- Launched a 5-stage compliant EHR document workflow (ingestion, OCR extraction, LLM analysis, validation, admin approval) with audit-ready status tracking and retry logic, significantly reducing failed extractions and improving processing reliability.
- Streamlined an OCR pipeline for lab reports and medical documents, substantially reducing manual data entry while maintaining structured, verifiable output records.
- Deployed an LLM-based clinical extraction service parsing 6 structured data types — vitals, diagnoses, lab results, allergies, medications, and clinical notes — with built-in validation.

AI Business Intelligence Agent (MCP) — iGaming Admin Proof of Concept

- Created an MCP-based AI business intelligence agent enabling natural language database querying, built as a proof-of-concept for the company's iGaming admin platform.
- Implemented secure LLM-powered SQL generation with schema-aware prompting and built-in SQL validation.

- Integrated multiple LLM providers (Groq & Gemini) with automatic failover and unified tool-calling workflows.
- Built feedback-enhanced RAG and a reusable React chatbot SDK to demonstrate natural-language reporting and query capabilities for admin dashboards.
- Monitored performance metrics — response latency and retrieval accuracy — to validate feasibility ahead of potential production rollout.

ML Training Admin Platform — Governance & Access Control

- Launched a role-based Django admin platform enabling secure client onboarding with auto-generated API keys and configurable feature permissions (LTV, Fraud Detection, Forecasting) per client.
- Automated model training pipelines triggered by permission assignment with results stored per client ID, significantly reducing turnaround time and manual intervention.
- Integrated callback management for real-time event notifications (orders, revenue alerts, fraud flags) with admin dashboards for monitoring and validating model outputs.

AI Engineer Intern | Tecpinion, Indore, India (On-site)

Apr 2025 – Jul 2025

- Built and validated 3 ML models — LTV prediction, fraud detection, and deposit forecasting — analyzing operational data patterns to surface anomalies and drive risk-based decision-making.
- Constructed and maintained feature engineering pipelines ensuring data quality and consistency across model training and evaluation workflows.
- Deployed model outputs into client-facing analytics dashboards, improving reporting accuracy across 2+ enterprise accounts.

Data Analytics Intern | IBM CSRBox, Remote

Dec 2024 – Jan 2025

- Extracted and transformed 5+ datasets using Python and SQL, delivering structured business insight reports with actionable findings.
- Delivered 3 interactive Power BI dashboards consolidating operational metrics, reducing manual reporting effort for the analytics team.

PROJECTS

Crop Disease Detection Model • TensorFlow • Keras • CNN • Computer Vision

- Trained a CNN image classification model achieving 85%+ validation accuracy on a multi-class plant disease dataset.
- Applied data augmentation pipelines (rotation, flipping, zoom, brightness) expanding the effective training set by 3x to improve generalization on real-world inputs.
- Iterated on architecture depth, dropout regularization, and learning rate scheduling to minimize overfitting.

Youth Media Trend Analytics Dashboard • Power BI • Data Analysis • KPI Design

- Defined 8+ KPIs covering media consumption, platform engagement, and content preference trends across youth audiences.
- Engineered interactive Power BI dashboards with drill-through filters and cross-visual highlighting for demographic and time-period exploration.

EDUCATION

Bachelor of Technology (B.Tech) – Computer Science & Information Technology

Chameli Devi Group of Institutions, Indore | **CGPA: 8.13 / 10**