

MUSTAFA IQBAL

AI Automation Engineer | LLM Workflows, APIs, RAG, Background Jobs

Profile

Independent AI Automation Engineer who builds reliable workflow systems around LLMs, APIs, and operational data. Strong in Python, FastAPI, Next.js, OAuth, webhooks, background jobs, vector search, and database-backed state. Focused on replacing repetitive manual work with maintainable systems, not fragile demos.

Relevant Experience

Independent AI Automation & Full-Stack Engineer

2022 - Present

Freelance

- Built automation products for email categorization and review-response workflows using LLMs, embeddings, event-driven processing, and human-friendly operational controls.
- Designed Next.js, TypeScript, Prisma, and Inngest systems with webhooks, scheduled jobs, retryable background processing, database state, and real-time data synchronization.
- Integrated Gmail and Google Business Profile APIs through OAuth2 and built flows for automated triggering, data synchronization, and ongoing workflow operations.
- Used OpenAI embeddings and similarity search with confidence-aware GPT-4o fallback to route ambiguous cases instead of forcing unreliable automated decisions.

AI Research Intern, Team Lead

Jun 2025 - Aug 2025

Genesys Research Lab

- Led a four-person team delivering an automated recruitment platform with candidate evaluation, semantic search, conversational interviewing, and FastAPI/Docker services.
- Built RAG retrieval over candidate and role data using Weaviate and Nomic embeddings, with structured model outputs for matching workflows.

Selected Automation Systems

AI Email Categorization Workflow

Gmail API integration, webhook-driven updates, OpenAI embeddings, vector similarity, GPT-4o fallback, Inngest background jobs, scheduled monitoring, and database-backed feedback loops.

AI Review Response Workflow

Google Business Profile OAuth2 integration, review synchronization, prompt templates, AI-generated draft responses, multi-location handling, and scheduled bulk processing.

Recruitment Matching & Interview System

Weaviate/Nomic semantic retrieval, Llama 3 via Groq, FastAPI, Docker Compose, candidate/job matching, and guided interview flows.

Technical Stack

AI/LLM: OpenAI APIs, Gemini, Groq/Llama 3, embeddings, RAG, semantic search, vector search, LangChain, structured outputs, prompt/workflow design

Automation: Webhooks, background jobs, Inngest, cron workflows, event-driven architecture, retry logic, API orchestration, real-time synchronization

Backend/Data: Python, FastAPI, Node.js, Next.js, PostgreSQL, Supabase, Prisma, SQLAlchemy, Weaviate, Pinecone, FAISS, OAuth2, JWT, REST APIs

Delivery: Docker, Docker Compose, GitHub Actions, Vercel, Render, Git, Claude Code, Codex

Education

B.S. Computer Science, FAST-NUCES, Islamabad

2026 | CGPA: **3.38/4.00** | Dean's List: **3 terms**