

Mohammed Affan

Software Developer

Bengaluru, India 1824.itachi@gmail.com github.com/Itachi-1824 LinkedIn: Mohammed Affan

PROFILE

Software developer at Pollinations.ai and Myceli.ai focused on AI infrastructure, agents, and developer tooling. Builds MCP integrations, streamed APIs, incremental retrieval, and workflow automation, with additional work in Rust systems, web, mobile, and interactive 3D.

EXPERIENCE

Pollinations.ai Feb 2025 – Present

Developer · MLOps & AI Infrastructure

- Build AI agents, model integrations, APIs, and workflow automation for the Pollinations platform.
- Extended the MCP server with tools for image batches, video generation, multimodal analysis, transcription, search, and pricing; added dynamic model discovery and API-key authentication.
- Contribute to Polli across Discord, GitHub, and OpenAI-compatible APIs, connecting repository search, session context, caller-scoped tools, model routing, and streamed responses.
- Moved repository embeddings into Cloudflare Vectorize with incremental indexing, batched embedding requests, and removal of vectors for deleted files.
- Replaced per-user database update subprocesses with batched operations and concurrent API validation; isolated Cloudflare shell execution in disposable containers without caller credentials.

Myceli.ai Feb 2025 – Present

Developer · AI Systems & Automation

- Connect AI infrastructure through automations and workflows, connecting models, services, and agent modules across cloud and local environments.

SELECTED PROJECTS

Memory-Arc Public source · Python

Built a configurable agent-memory engine separating recent history, processing policy, persistent vector retrieval, and model-provider adapters.

Agent evaluation environments Public source · OpenEnv hackathon

Built Compliance Auditor and WarRoom with procedural investigations, MCP tools, evolving state, and adversarial tests for reward shortcuts.

Ouroboros ML research · In development

Build language-model research prototypes in PyTorch, compare experiments against explicit baselines, and document limitations in research notes. Unpublished methods remain private.

Sylph Local AI systems · In development

Develop a Rust-based local AI runtime exploring inference, task-driven learning, and peer-to-peer adapter exchange, with compatibility checks, payload validation, and composition testing.

Repository intelligence Private · Rust developer tooling

Develop local repository-analysis tooling in Rust with SQLite/FTS5, Tree-sitter, structured evidence retrieval, and validation context for developers and coding agents.

Application engineering Private · Web, mobile & 3D

Built a Flutter records app with Supabase and reporting; developed a Next.js presentation builder with streamed generation; built SceneForge for interactive, streamed 3D scenes.

TECHNICAL SKILLS

Languages: Python, TypeScript / JavaScript, Rust, Dart, SQL.

AI & MLOps: PyTorch, model fine-tuning, local inference, model deployment, MCP, agent orchestration, RAG.

Infrastructure: Cloudflare Workers, Vectorize, D1, Docker, Kubernetes, Helm, Linux, GitHub Actions.

Applications & data: FastAPI, React, Next.js, Flutter, Three.js, Qdrant, SQLite, Supabase.

EDUCATION

Diploma — AI/ML pathway Pursuing · 5th semester

MS Ramaiah Polytechnic