

LAKSH GUPTA

Backend Engineer | AI Systems | Distributed Systems | Python | Golang

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PROFESSIONAL SUMMARY

Backend Engineer with **4+ years** of experience building distributed backend services and **LLM-powered platforms** across **Python, Golang, FastAPI, Docker, Kubernetes and AWS**. Owns systems end to end — data modeling, concurrency, RAG and vector retrieval, containerized deployment and observability.

TECHNICAL SKILLS

Languages: Python, Golang, Java, Kotlin, JavaScript, SQL, C++, TypeScript

Backend: FastAPI, Django, REST APIs, AsyncIO, WebSockets, Microservices, SQLAlchemy, System Design

AI & GenAI: OpenAI SDK, Claude, LangChain, LangGraph, AI Agents, RAG, MCP, Vector Search, Vertex AI, Generative AI

Databases: PostgreSQL, MongoDB, Redis, MySQL

Cloud & DevOps: AWS, Docker, Kubernetes, Jenkins, Ansible, CI/CD

Automation & Practices: Playwright, Selenium, Firecrawl, Apify, Meta APIs, X APIs, Feature Toggles

PROFESSIONAL EXPERIENCE

Kyko AI — Bengaluru, India **Feb 2026 – Present**

Backend Engineer

- Architected an AI-powered **Brand Intelligence platform** processing **400+ social posts** and full website content per ingestion using **FastAPI, LangGraph, Vertex AI Embeddings and pgvector**.
- Designed a distributed ingestion pipeline with **AsyncIO** concurrency and run-lifecycle management, sustaining **~90% extraction success** across third-party APIs.
- Shipped **20+ REST endpoints** and autonomous agent workflows with **Python, LangChain and OpenAI SDK**, instrumenting run-ID structured logging for full traceability.
- Restructured an unstructured data layer into domain-aligned **PostgreSQL** schemas and **SQLAlchemy** models, improving query performance and maintainability.
- Implemented **vector search** for low-latency semantic retrieval, and benchmarked **Firecrawl, Apify, Selenium and Playwright** against Meta and X API constraints.
- Engineered LLM-assisted **Playwright** automation validating real user journeys, saving **8+ QA hours** per release.

Thoughtworks — Bengaluru, India **Oct 2025 – Jan 2026**

Developer Consultant

- Built a skill-centric **AI QA agent** with **Python and Claude**, and contributed **Golang microservices** to an enterprise payment system.
- Delivered system architecture and ER designs for a client VR platform, practicing **TDD** and feature-toggle-gated deployment.

Microland Ltd. — Bengaluru, India **Jan 2022 – Oct 2025**

Senior Software Developer, Platforms Jun 2022 – Oct 2025

- Engineered **Golang** REST endpoints and **WebSocket** services delivering real-time bidirectional messaging to **15+ enterprise clients** with persistent connection handling.
- Instrumented monitoring and metrics pipelines across distributed automation services, driving a **30% reduction** in support tickets and **10% increase** in adoption.
- Containerized microservices with **Docker and Kubernetes** and secured them via **RBAC** and **SAML** authentication, reducing deployment time **10%**.
- Automated infrastructure provisioning with **Ansible** and **Jenkins** CI/CD pipelines, improving development efficiency **20%** and saving **20+ engineering hours weekly**.

Software Engineer Intern Jan 2022 – Jun 2022

- Developed an **RBAC-enabled** MongoDB management UI with **Python and Django**, promoted to Senior Software Developer within six months.

Axis Bank — Bengaluru, India **May 2021 – Jul 2021**

Data Engineer Intern

- Built a **Chart.js** COVID-19 analytics tracker serving **1000+ global users** and optimized **Jenkins** CI/CD pipelines, reducing deployment time **20%**.

EDUCATION

Birla Institute of Technology, Mesra — B.E. Computer Science · CGPA 8.2/10, First Division **2018 – 2022**

PROJECTS

- Portfolio Platform** (lakshgupta.vercel.app) — 33-theme portfolio with an interactive architecture diagram, built with **Next.js 15, TypeScript and Tailwind v4**.
- YTPodcaster** — LLM summarization and text-to-speech pipeline converting long-form video into podcast audio with **Python and OpenAI**.
- ParkWise** — full-stack parking platform with real-time slot availability over REST, built with **FastAPI and Angular**.

ACHIEVEMENTS

- MLH Fellowship; Microland MRC Award (x2);** finalist at **HackNITR 2.0; 5-star HackerRank** and **4-star CodeChef**.