

Chirag Suthar

Backend Engineer – AI Systems

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Professional Summary

Backend and AI engineer with **4.5+ years of experience** building scalable distributed systems and AI-powered applications using Python. Experienced in designing **LLM pipelines, RAG architectures, microservices platforms and high-performance APIs**. Proven track record delivering production-ready backend systems across cloud-native environments.

Core Expertise

Backend Engineering

Distributed Systems

AI Systems Development

API Design

Cloud & DevOps

Data Processing

Python, FastAPI, Django

Scalable Microservices, Asynchronous Processing

LLMs, RAG Pipelines, Embeddings, Vector Databases

REST APIs, Backend Architecture

AWS, Docker, Kubernetes

Data Pipelines, Analytics Workflows

Experience

Deloitte Consulting India Private Limited

Consultant

Bangalore, India

Aug 2025 – Feb 2026

- Designed enterprise **LLM-based automation systems** using Python and multi-agent architectures.
- Built scalable **RAG pipelines** enabling intelligent document retrieval across enterprise knowledge bases.
- Developed backend microservices using **FastAPI and PostgreSQL** supporting AI workflows.
- Implemented prompt engineering and evaluation pipelines improving LLM response quality.
- Optimized asynchronous processing pipelines improving API performance and system scalability.

Triam Security India Private Limited

Senior Software Engineer

Ahmedabad, India

Jun 2024 – Jul 2025

- Designed scalable backend microservices using **Python, FastAPI and PostgreSQL**.
- Built data processing pipelines improving operational efficiency by **40%**.
- Developed RESTful APIs enabling integration across internal services.
- Implemented CI/CD pipelines reducing deployment time by **30%**.
- Optimized database queries improving performance for analytics workloads.

Adrta Technologies Private Limited

Team Lead

Ahmedabad, India

Mar 2024 – Apr 2024

- Led backend development for a short-term platform enhancement project using **Python and REST APIs**.
- Designed service endpoints and optimized database queries improving API response performance.
- Coordinated with engineering stakeholders to deliver backend features within tight development timelines.

Acies LLP

Product Development Specialist

Goa, India

Jul 2023 – Feb 2024

- Developed backend services for financial analytics platforms using **Python and Django**.
- Integrated third-party APIs and implemented scalable data processing pipelines.
- Deployed and maintained applications on **AWS infrastructure (EC2, S3, RDS)**.
- Designed backend modules for processing financial datasets and generating analytics insights for consulting use cases.
- Implemented secure API integrations for financial data ingestion ensuring reliability and performance.

DRC Systems India Limited
Software Engineer

Gandhinagar, India
Jul 2022 – Jun 2023

- Developed backend services and REST APIs using **Python and Django**.
- Built database schemas and optimized PostgreSQL and MySQL queries.
- Collaborated with cross-functional teams to deliver enterprise web applications.

HCL Technologies Limited
Software Engineer

Pune, India
Jul 2021 – Jul 2022

- Developed backend APIs and enterprise applications using **Python and JavaScript**.
- Maintained production backend services and optimized relational databases.

AI Systems & Platforms Built

Enterprise AI Automation Platform

Python, FastAPI, LLM, RAG

2025

- Designed and developed an enterprise automation platform using **LLM agents and Retrieval-Augmented Generation (RAG)** pipelines.
- Implemented semantic document retrieval using **embeddings and vector databases**.
- Built scalable backend services with **Python, FastAPI and PostgreSQL**.
- Integrated AI workflows with backend APIs enabling automated knowledge retrieval and decision support.

AI Knowledge Assistant

Python, FastAPI, Vector DB, LLM APIs

2025

- Developed conversational AI assistant enabling semantic search across large document collections.
- Implemented embedding-based indexing and vector similarity search pipelines.
- Built REST APIs supporting conversational query processing and response generation.
- Designed modular backend architecture supporting scalable AI service deployment.

Projects

Vacation Rental Data Analysis

Python, Pandas, NumPy

2025

- Analyzed large-scale vacation rental datasets to identify pricing patterns and demand trends.
- Performed correlation analysis and feature engineering to improve predictive insights.
- Built reusable data processing pipelines for data cleaning, aggregation and analysis.
- Generated insights supporting data-driven decision making for rental market analysis.

Technical Skills

Programming Languages: Python, JavaScript, Java, SQL

Backend Development: Django, FastAPI, Flask, REST APIs, Microservices

AI / LLM Systems: Large Language Models (LLMs), RAG Pipelines, Prompt Engineering, Embeddings, Vector Databases

Cloud & DevOps: AWS, Azure, GCP, Docker, Kubernetes, CI/CD

Databases: PostgreSQL, MySQL, MongoDB, Redis

Architecture: Distributed Systems, Backend Architecture, API Design, Data Pipelines

Tools: Git, Linux, Bash

Education

Punjab Technical University

B.Tech in Computer Science – GPA: 8.0/10

Mohali, India

June 2021