

SUNNY KHANORKAR

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SUMMARY

Software Engineer with 5 years of backend and full-stack experience in healthcare technology, specializing in Python microservices, REST APIs, and agentic AI systems. Proven track record building high-throughput clinical data pipelines, ML-integrated workflows, and cloud-native infrastructure on AWS and GCP. Currently architecting GenAI/agentic solutions at GE HealthCare; prior roles at Fortis Healthcare and HealthPliz delivered measurable reductions in system latency, operational costs, and manual processing overhead.

WORK EXPERIENCE

GE HealthCare

Software Engineer – AI/Backend (Agentic AI)

Jan 2025 – Present

- Architected a multi-agent agentic AI platform using LangGraph and AutoGen to automate radiology report triage, reducing radiologist review time by 38% across 3 hospital integrations.
- Built and deployed Python-based microservices on AWS EKS serving 500K+ monthly inference requests with p99 latency under 180ms; Kubernetes HPA scaled pods automatically during peak diagnostic loads.
- Designed a RAG pipeline over 2M+ clinical documents using Elasticsearch + OpenAI embeddings, cutting unstructured data query time from 14s to 1.8s.
- Engineered LLM orchestration layer with LangChain tool-calling to interface with 6 downstream FHIR-compliant EHR APIs, eliminating 4 manual integration touchpoints.
- Implemented real-time event streaming via Apache Kafka to feed agentic decision loops with live patient vitals, enabling sub-second context updates for on-call alert agents.
- Built monitoring dashboards in Datadog and Grafana tracking agent task completion rates, token costs, and error traces; reduced mean time-to-detection for agent failures from 22 min to 4 min.
- Deployed infrastructure-as-code (Terraform) for all AI services across AWS dev/staging/prod environments, reducing environment provisioning time from 3 days to 45 minutes.
- Collaborated with clinical AI researchers to evaluate 4 LLM candidates (GPT-4o, Claude 3, Llama 3, Mistral) on HIPAA-compliant benchmarks; selected final model achieving 91% diagnostic note accuracy.

Fortis Healthcare

Software Development Engineer II – Backend

Apr 2021 – Jul 2023

- Owned backend architecture for Fortis's patient portal serving 1.2M+ registered users; migrated monolith to 11 Python FastAPI microservices on AWS, reducing deployment cycle from 3 weeks to 2 days.
- Designed and implemented an event-driven appointment scheduling engine using AWS SQS + Celery, processing 80K+ bookings/day with zero message loss across 28 hospitals.
- Built a real-time clinical data pipeline (Python + Apache Kafka + Spark Streaming) ingesting lab results from 6 diagnostic partners, reducing report delivery latency from 40 min to under 3 min.
- Integrated a fraud detection ML model (scikit-learn gradient boosting) into the billing API, flagging 94% of duplicate insurance claims and saving \$1.2M annually in erroneous reimbursements.
- Led PostgreSQL schema redesign for patient records with partitioning and composite indexing, cutting average query execution time by 62% on a 500M-row table.
- Containerized all backend services with Docker and deployed to AWS ECS; wrote CI/CD pipelines in GitHub Actions cutting manual release effort by 70%.
- Built a HIPAA-compliant audit-logging service using DynamoDB Streams and AWS Lambda, capturing every PHI access event with 100% replay fidelity for compliance audits.
- Mentored 3 junior engineers on code review standards, system design patterns, and test coverage targets; team unit test coverage rose from 41% to 87% over 6 months.

HealthPliz

Associate Software Developer – Backend & Full Stack

Feb 2020 – Mar 2021

- Developed 35+ REST API endpoints in Python (Django REST Framework) for patient onboarding, teleconsultation booking, and pharmacy ordering; APIs served 15K+ daily active users at launch.
- Built full-stack telemedicine module (Django + React) integrating WebRTC-based video consultations with automated appointment reminders via Twilio SMS/email, reducing no-show rate by 27%.
- Designed MySQL schema with normalized tables and stored procedures for prescription and drug inventory management; query response time averaged under 80ms at 10K concurrent sessions.

- Deployed Django application to AWS EC2 behind an Application Load Balancer with auto-scaling groups; sustained 99.7% uptime during a 4x traffic spike during COVID-19 lockdown.
- Implemented Redis caching layer for doctor profile and availability endpoints, reducing database read load by 55% and cutting API response time from 420ms to 90ms.
- Wrote Dockerfiles and docker-compose configurations for local and staging environments, eliminating 'works on my machine' defects and reducing onboarding time for new developers by 3 days.
- Integrated Razorpay and Stripe payment gateways with webhook-based reconciliation, processing ₹8M+ monthly transactions with less than 0.1% payment failure rate.
- Collaborated directly with 2 product managers to translate clinical workflow requirements into technical specs, delivering all 3 MVP modules 1 week ahead of schedule.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, SQL, Bash

Frameworks & Libraries: FastAPI, Flask, Django, Node.js, Express.js, React, LangChain, LangGraph, AutoGen, Celery, gRPC, GraphQL, REST APIs, Microservices, Event-Driven Architecture, WebSockets

AI / ML: Agentic AI Systems, RAG Pipelines, Advanced Retrieval (Hybrid Search, Reranking), LLM Fine-Tuning (LoRA, PEFT), Prompt Engineering, OpenAI APIs, Function Calling, Structured Output (JSON Schema), LangChain, LangGraph, LlamaIndex, Hugging Face Transformers, Vector Databases (FAISS, Pinecone, pgvector), Embedding Models, Model Evaluation (RAGAS, LangSmith), Hallucination Detection, Guardrails, scikit-learn, TensorFlow, PyTorch

Cloud & DevOps: AWS (EC2, S3, Lambda, SQS, RDS, EKS), GCP (BigQuery, Pub/Sub, Cloud Run), Docker, Kubernetes, Terraform, CI/CD (GitHub Actions, Jenkins), Serverless Architecture

Databases & Big Data: PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch, Apache Kafka, Apache Spark, Hive

Tools: Git, JIRA, Postman, Datadog, Grafana, PagerDuty, OpenTelemetry, Prometheus, SonarQube

EDUCATION

Virginia Polytechnic Institute and State University (Virginia Tech)

Master of Engineering in Computer Engineering

Alexandria, VA

Aug 2023 – May 2025

Nagpur University

Bachelor of Engineering in Computer Science

Nagpur, India

Jun 2018 – Jul 2022