

JAY HEMNANI

jayhemnani992000@gmail.com | GitHub: github.com/jayhemnani9910
San Jose, CA

Education

| | |
|---|-----------------------------------|
| San José State University <i>M.S. in Applied Data Intelligence</i> | Jan 2025 – Present San Jose, CA |
| Pandit Deendayal Energy University (PDEU) <i>B.Tech in Computer Engineering GPA: 8.7/10</i> | 2018 – 2022 Gandhinagar, India |

Technical Skills

| |
|--|
| Languages: Python, Java, Go, JavaScript/TypeScript, C++, SQL |
| Backend: Node.js, Express, FastAPI, REST APIs, GraphQL, gRPC, Microservices Architecture |
| Distributed Systems: Apache Kafka, Redis, Message Queues, Event-Driven Architecture, Load Balancing |
| Databases: PostgreSQL, MySQL, MongoDB, Redis, TimescaleDB, Database Design |
| Cloud & DevOps: AWS (EC2, S3, Lambda, ECS), Azure, Docker, Kubernetes, GitHub Actions, CI/CD |
| Tools: Git, Linux, Nginx, JWT, OAuth, API Gateway, Rate Limiting |

Experience

| | |
|---|---------------------------------|
| Data Analyst, Elite Hotel Group | Summer 2025 San Jose, CA |
| • Engineered automated data pipelines using Python and SQL, reducing manual processing by 40% and improving system reliability across multi-property workflows. | |
| • Built REST APIs for internal dashboards integrating with Tableau/Power BI for real-time KPI tracking. | |
| Independent Technical Consultant, | 2022 – 2024 Remote |
| • Provided backend development and infrastructure consulting for small businesses, building APIs and deployment pipelines. | |
| AI/ML Intern, Amnex | Jan – May 2022 Gujarat, India |
| • Built fraud detection backend using Python with REST APIs for model serving, achieving 94% precision on transaction classification. | |
| • Developed automated reporting services with scheduled jobs and database integrations for operational analytics. | |
| Software Engineering Intern, Cactus Creatives | May – Nov 2019 Gujarat, India |
| • Built cloud-native communication platform for first responders using microservices architecture on Azure, implementing REST APIs for real-time dispatch. | |
| • Configured CI/CD pipelines with automated testing and deployment workflows, reducing deployment time by 60% . | |

Projects

| |
|--|
| Kayak — Distributed Travel Platform <i>Node.js, MySQL, MongoDB, Redis, Kafka, Docker</i> |
| • Engineered 3-tier distributed architecture with API Gateway handling JWT authentication, rate limiting, and request routing to independent microservices. |
| • Designed horizontal scaling strategy with independent User, Search, and Booking services for fault isolation and independent deployment. |
| • Achieved sub-100ms API latency via Redis caching; implemented Kafka event streaming for real-time inventory sync across services. |
| Stock Data Platform — Streaming Backend <i>Python, Kafka, Airflow, TimescaleDB, Docker</i> |
| • Built distributed streaming architecture using Kafka for real-time tick ingestion with idempotent writes and producer buffering. |
| • Designed hybrid storage layer with TimescaleDB hypertables for time-series data and star schema for analytics queries. |
| • Implemented batch processing pipelines with Airflow for scheduled ETL, backfills, and data validation. |
| BarcaBrain — Backend Services <i>Python, FastAPI, FAISS, Redis</i> |
| • Built REST API for vector similarity search serving 10,000+ player records with <100ms response time . |
| • Implemented caching layer with Redis for frequently queried player comparisons and search results. |