

YUVRAJ SINGH SHEKHAWAT

Full Stack Engineer | Python | FastAPI | Distributed Systems | AI Platforms | Cloud-Native Architecture

11+ Years Experience

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PROFESSIONAL SUMMARY

Principal Backend Engineer with 11+ years of experience designing and scaling distributed, cloud-native backend systems and AI-enabled platforms. Expert in Python, FastAPI, SQLAlchemy, Pydantic v2, AsyncIO, PostgreSQL, Microservices, event-driven architectures, REST/OpenAPI, and real-time systems. Experienced in designing multi-tenant platforms, high-concurrency services, cloud infrastructure, CI/CD pipelines, observability, and production AI/LLM integrations. Proven track record of improving system performance by up to 60%, supporting 700+ brands, and building data/AI platforms processing 1GB+ daily workloads.

KEY ACHIEVEMENTS

- Scaled POS platform to support 700+ brands and multi-location operations with 1–2 second load times (60% performance improvement).
- Architected ETL data pipeline processing 1GB+ daily data across 30+ toll plazas using AWS Glue (Catalogs, Workflows, Jobs, Triggers).
- Built real-time WebSocket ordering system handling hundreds of concurrent API requests with low-latency communication.
- Reduced frontend bundle size by 30% and optimised database query performance by 30% through indexing and caching strategies.
- Implemented CI/CD pipelines that reduced release cycles and improved deployment reliability across multiple projects.

TECHNICAL SKILLS

Backend: Python, FastAPI, SQLAlchemy, Pydantic v2, Alembic, AsyncIO, REST APIs, OpenAPI, GraphQL, WebSockets, Distributed Systems, Background Tasks, Event-driven Architecture, Microservices, Laravel, Node

Databases: MongoDB, Redshift, PostgreSQL

Cloud: EC2, RDS, S3, AWS Glue (Catalogs, Workflows, Jobs, Triggers), CloudWatch, CI/CD Pipelines, AWS CodeCommit, Terraform

Architecture: System Design, Distributed Systems, Caching, Authentication, Rate Limiting

Frontend: Vue.js 2 & 3 (CLI), Nuxt.js, Alpine.js, Tailwind CSS, Daisy UI, SCSS, React

Data & Visualisation: Tableau, Kool Report, D3.js

AI & Emerging Tech: Prompt Engineering, LLM Integration, Generative AI, OpenAI API, LLM Integration

Tools & Tracking: Git (GitHub, GitLab, Bitbucket), Jira, Asana, VS Code, kubernetes and docker

WORK EXPERIENCE

Digital Wave Technology

Sep 2025 – Feb 2026

Full Stack Tech Lead

Ahmedabad

- Designed and implemented high-performance REST APIs using FastAPI, handling hundreds of concurrent requests efficiently.
- Built and optimised real-time WebSocket systems for POS and ordering platforms, ensuring sub-100ms latency.
- Implemented CI/CD pipelines enabling reliable, zero-downtime deployments across staging and production environments.
- Collaborated cross-functionally to ensure system scalability, maintainability, and performance benchmarks were met.

Trigent Software Pvt. Ltd.

Nov 2024 – Sep 2025

Module Lead

Bangalore

- Led development of scalable frontend applications in Vue.js and backend Microservices in FastAPI (Python).
- Designed high-performance REST APIs with optimised response times for concurrent enterprise-scale workloads.
- Improved system stability through API optimisation, efficient state management, and comprehensive testing strategies.
- Mentored junior developers, conducted regular code reviews, and enforced engineering best practices.
- Contributed to system architecture decisions that improved application scalability and long-term maintainability.

Sunarc Technologies

Jul 2016 – Nov 2024

Sr. Software Developer → Full Stack Tech Lead

Bikaner

- Led end-to-end full-stack development using React, FastAPI (Python), and Laravel for business-critical applications.

- Reduced frontend bundle size by 30% and cut page load time to 1–2 seconds through architecture optimisation.
- Architected Microservices and RESTful APIs ensuring high availability, scalability, and fault tolerance.
- Leveraged AWS (EC2, S3, Glue) to design and operate cloud-based, scalable application infrastructure.
- Drove query optimisation, caching strategies, and efficient data handling — improving system performance by 60%.
- Led technical strategy, code reviews, and cross-team collaboration; mentored developers and grew engineering culture.

Oneup Software

Jul 2015 – Jul 2016

Software Developer → Sr. Software Developer

Bikaner

- Developed and maintained full-stack web applications using PHP, JavaScript, HTML/CSS, and SQL.
- Built RESTful APIs and dynamic frontend components; gained strong foundation in system design and database optimisation.

KEY PROJECTS

DIMS POS – Large-Scale Point-of-Sale System

Vue.js · FastAPI · Python · WebSockets · PostgreSQL · AWS · Terraform · Docker · CI/CD

Role: Full Stack Tech Lead

- Built a POS platform for **700+ brands**, handling orders across multiple locations in real-time.
- Created **REST APIs and services** using Python and FastAPI, designed for high-volume requests and WebSocket connections.
- Enabled real-time order updates between POS systems, kitchen displays, and customer apps using WebSockets.
- Managed application infrastructure on AWS, including hosting, storage, monitoring, and scalability, using **Terraform for Infrastructure as Code**.
- Enhanced system performance by **60%**, achieving **load times of 1-2 seconds**, through API, database, and frontend improvements.
- Led architectural design, code reviews, performance optimisation, CI/CD pipeline setup, Docker implementation, and technical delivery.

ics System

Laravel · Python · AWS Glue · S3 · Redshift · Tableau · React

Role: Full Stack Tech Lead

- Designed an end-to-end toll analytics platform processing **1GB+ daily data from 30+ toll plazas**.
- Built **Python-based ETL and data transformation workflows** using AWS Glue, Glue Catalogue, Crawlers, Workflows, and Triggers.
- Used **AWS S3 and Redshift** for scalable data storage and analytical processing.
- Developed **React-based interfaces** and integrated backend APIs for operational analytics and data visualisation.
- Built Tableau dashboards providing actionable insights into toll transactions, traffic, and operational performance.
- Led overall **system architecture, AWS design, data pipelines, backend, and frontend development**.

Broccoli – Real-Time POS & Ordering System

React · Python · FastAPI · MongoDB · WebSockets · AWS

Role: Full Stack Engineer

- Developed a real-time POS and ordering platform using **Python/FastAPI** with scalable REST APIs.
- Implemented **WebSocket-based real-time communication** for instant order updates across multiple clients.
- Optimised MongoDB queries, indexes, and API processing to improve application responsiveness.
- Developed asynchronous FastAPI services using Python `async/await` for concurrent request handling.
- Worked with **AWS-based deployment and infrastructure** and Dockerized application services.
- Implemented API validation, authentication, error handling, pagination, and performance optimisations.

Maestro AI

Python · FastAPI · GraphQL · REST APIs · AWS Code Commit

Role: Backend Lead

- Developed scalable backend services using **Python and FastAPI** for AI-driven application workflows.
- Designed and implemented **REST and GraphQL APIs** for efficient data access and service integration.
- Implemented **rate limiting, throttling, validation, and centralised exception handling** for production APIs.
- Used asynchronous Python programming for I/O-intensive operations and improved service throughput.
- Performed **API performance profiling and optimisation** to identify and resolve bottlenecks.
- Worked with **AWS and Docker-based deployments** to support scalable backend services.

Go Order – QR-Based Ordering Platform

React · D3.js · Python · FastAPI · WebSockets · AWS

Role: Lead Engineer

- Developed a multi-domain **QR-based ordering platform** using React for customer ordering and restaurant workflows.
- Built reusable **React components** for menus, cart, ordering, checkout, and order tracking.
- Developed **Python/FastAPI REST APIs** supporting products, menus, orders, customers, and restaurant operations.
- Implemented **WebSocket-based real-time order updates** for connected clients.
- Built interactive analytics and visualisations using **D3.js**.
- Worked with **AWS deployment and scalable backend infrastructure**, focusing on performance and reliability.

Laraboost – Multi-Tenant CRM

Laravel · PHP · SQL · AWS · Terraform · AWS CodeCommit

Role: Full Stack Engineer

- Developed a scalable **multi-tenant CRM platform** with tenant-level data isolation and role-based access control.
- Built and optimised **Laravel/PHP backend modules, REST APIs, and database workflows** for core CRM functionality.
- Improved database query performance by approximately **30%** through indexing, query optimisation, and efficient data access patterns.
- Worked with **AWS services and CodeCommit** for source control, deployment, and cloud-based application environments.
- Used **Terraform for Infrastructure as Code (IaC)** to provision and manage AWS infrastructure across environments.
- Collaborated on application performance, debugging, deployment, and production support activities.

CERTIFICATIONS

- Software Architecture & Design of Modern Large-Scale Systems
- Simplifying Data Pipelines with Apache Kafka
- Introduction to Data Science (IBM)
- Python for Data Science (IBM)
- Data Science with Python
- Tableau Desktop

EDUCATION

MSc Information Technologies

2013

Maharaja Ganga Singh University, Bikaner

BCA – Computer Science

2010

Maharaja Ganga Singh University, Bikaner