Deepak Goel

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Summary

- Principal Backend & Distributed Systems Engineer with deep experience building large-scale, high-throughput SaaS platforms in many domains like fintech, networking, security etc.
- Skilled in designing distributed architectures, database schema optimization, real-time data pipelines, backend components, and event-driven systems.
- Expertise in doing full cycle development using Claude Code and MCP servers
- Strong track record of driving multi-team initiatives improving reliability and performance, and mentoring engineers, and influencing architecture across business functions

Technical Expertise

- Distributed Systems, Real-Time Pipelines, High-Throughput Event Processing
- Fault Tolerance, Latency Optimization, Throughput Engineering, Observability
- AI-Native Development: Roo Code, Claude Code, GitHub Copilot
- Microservices Arch, Kubernetes, Docker, GCP (Dataflow, Pub/Sub, BigQuery), AWS
- Kafka, Cassandra, Druid, PostgreSQL, CDC Pipelines, Debezium, Airflow, dbt
- React, Java, Go (exposure), Python (exposure)

Professional Experience

Turing — Consultant

Principal Engineer, Amazon UI Gym Development (Dec 2025 – Present)

- Led Docker-based development of RL UI Gyms for Amazon, delivering production-quality environments for Zendesk, Jira, and Gmail; working on HubSpot and Doordash.
- Designed and implemented full-stack observability using OpenTelemetry, providing detailed frontend, backend, container, and node-level dashboards; instrumentation directly surfaced and resolved performance bottlenecks in Mira.
- Closed gaps in browser and Python auto-instrumentation by extending backend APIs, restoring missing semantic context, and resolving macOS vs Linux container discrepancies.
- Architected a deterministic test-data generation system with semantic inference, configurable distributions, and FK-safe incremental data generation across heterogeneous schemas.
- Built robust asynchronous data import pipelines handling circular dependencies, PII guardrails, constraint enforcement, and import history for large datasets.
- Designed Claude-based code-generation agents and a template repository to make AI-assisted development deterministic and aligned with quality standards.

Black Duck, CA (May 2022 – Oct 2025)

Principal Software Engineer, Polaris SaaS for AppSec

- Led architecture of a cloud-native AppSec SaaS composed of 20+ microservices running on GKE (GCP) with focus on maintainability, observability, latency, reliability and throughput.
- Mentored engineers through design and code reviews; introduced platform standards, coding standards and review checklists that improved consistency and maintainability across services.

- Partnered with product managers and leadership to translate ambiguous requirements into concrete architectures and delivery plans.
- Designed and delivered a high-throughput ingestion pipeline using GCS, Dataflow, and Cloud Functions, increasing throughput by over 100×.
- Built a self-serve analytics layer powering dashboards and enabled product managers to create and iterate without engineering involvement.
- Designed and shipped LLM-assisted workflows for code-fix recommendations, PR review, architecture review, and test generation, with guardrails to ensure safety for production use.

Virtela, CO (Jan 2017 – Mar 2020)

Senior Architect, Network Analytics

- Architected a real-time analytics platform processing over 1M messages per second with sub-minute end-to-end latency.
- Designed efficient streaming, storage, and retrieval layers using Kafka, Spark, and Druid.
- Published streaming data into HDFS for batch analytics and ML workloads, enabling replay, backfills, and offline analysis.

Agaminsoft, CA (Apr 2014 – Dec 2016*)*

Architect, Multi-Tenant Accounting SaaS

- Designed multi-tenant SaaS solution that could elastically scale and was deployed on AWS
- Built a configurable platform with custom fields/objects, forms, workflows, integrations, and a business rules execution engine to support divergent customer needs.
- Delivered platform features including SSO, fine-grained RBAC, notifications, scheduled jobs, and pipelines; enabled rapid onboarding across non-profits, manufacturing, and services.
- Major components included Java, React, Spring Boot, MySQL, AWS, SPA, CI/CD (GitHub Workflows), Terraform.

Intuit, CA (Jan 2007 – Oct 2013*)*

Staff Software Engineer, QuickBooks Online

- Architected backend capabilities for QuickBooks Online supporting 300K+ SMBs and millions of users, with strong reliability, performance, and production observability.
- Designed and implemented scalable financial workflows with strong consistency and auditability.
- Led cross-team initiatives across accountant workflows, core financial processing, authorization, and transaction categorization.
- Built a declarative, metadata-driven platform that reduced development time across product lines by standardizing business rules, validation, and persistence
- Major components included J2EE, Spring MVC, JavaScript, Oracle, CI/CD (Jenkins)

Earlier Experience

Architect / Chief Architect roles at Providian, Valdero Corp, Enfish, Siemens Enterprise Networks; early career development roles at Micronet, DCM, and HCL.

Education

B.S., Pune University, 1991