AJAY PRAJAPAT

Principal Engineer, Backend & Platform

ajayprajapat@live.com
+91-87699-62237
linkedin.com/in/ajayprajapat
Udaipur, India

SCAN CV

PRINCIPAL ENGINEER SUMMARY

Principal Platform Engineer with 12+ years of experience building the backend and delivery foundations that enable teams to ship reliable systems at scale. Defines platform direction across CI/CD, service templates, observability, deployment patterns, and operational guardrails to reduce duplication and improve engineering throughput. Known for converting recurring delivery and operability problems into reusable platform capabilities, clearer standards, and lower-risk engineering workflows across teams. Ajay operates at the intersection of backend architecture strategy, platform leverage, and engineering execution. He defines target-state architecture for services and internal platforms, then drives adoption through standards for APIs, messaging, observability, CI/CD, and cloud delivery. His strongest Principal-level contribution is turning recurring engineering and operability problems into reusable platform capabilities, clearer architectural guardrails, and long-term technical direction across multiple teams.

VARIANT FOCUS

BEST FOR

Principal Engineer, Staff+, Platform Architect, Backend Architect, and backend/platform architecture leadership roles

CTA FOCUS

Open principal CV, view architecture case studies, contact for staff+/principal roles

PRIMARY KEYWORDS

Principal Engineer · Platform Engineering · Backend Architecture · Distributed Systems · Reliability · Observability

SIGNATURE PROJECTS

Logistics Platform

Banking Payment Processing System

CI/CD & Deployment Automation

Backendless REST & WebSocket Platform

KEY SKILLS

FRONTEND

TypeScript

BACKEND

Node.js, NestJS, Express.js, Java, Spring Boot, Go

ARCHITECTURE

Distributed Systems, Microservices, Event-Driven Architecture, CQRS, Domain-Driven Design (DDD), Platform Engineering

APIS

REST APIs, GraphQL, WebSockets, Kafka, RabbitMQ, Redis

DEVOPS

AWS, Azure, Docker, Kubernetes, CI/CD, GitHub Actions

AI / AUTOMATION

RAG

CORE COMPETENCIES

Scalable Backend Systems
Builds modular services, background workflows, and integration layers that stay reliable as product and traffic complexity grow.

System Design & Architecture
Translates product and platform goals into service boundaries, deployment patterns, and maintainable technical direction.

API Design & Integrations
Defines clean contracts for frontend, backend, and third-party integrations with an emphasis on consistency and operational clarity.

Cloud & DevOps Delivery
Improves release reliability through containerized delivery, deployment automation, and production-ready cloud operating patterns.

AI Integration & Automation
Integrates LLM, retrieval, and agentic workflows into production systems with guardrails, observability, and real business use cases.

Performance & Event Processing
Uses caching and asynchronous messaging to improve throughput, reduce latency, and isolate failures in production workflows.

SEARCH OPTIMIZATION

Naturally repeat the role title, primary stack, delivery scope, and architecture keywords in the headline, summary, current role bullets, and project section so recruiters can match both hands-on and lead-level search queries.

PRINCIPAL IMPACT SNAPSHOT

Owned backend and platform architecture direction across enterprise SaaS, FinTech, logistics, industrial IoT, and AI-enabled systems, with emphasis on service boundaries, operability, and long-term scalability.

Drove cross-team adoption of event-driven integration, messaging standards, and reliability patterns using Node.js, Kafka, RabbitMQ, Redis, and CQRS-oriented workflows.

Created platform leverage through reusable service foundations, CI/CD guardrails, and observability conventions that improved delivery consistency and reduced operational risk.

PROFESSIONAL EXPERIENCE

GenAI / Agentic AI Architect

GENAI / AGENTIC AI

Independent Platforms & Products

2024 - PRESENT

Architected NestJS and LangChain-based AI platform services for multi-agent product workflows, creating reusable orchestration patterns for production-grade agent execution across multiple products.

Defined service boundaries, guardrails, and controlled tool-execution flows for AI-enabled backend platforms, improving production readiness and reducing operational risk in agent-driven workflows.

Standardized planner-executor-critic orchestration, Redis-backed memory, and observability patterns across multiple AI products, reducing repeated platform design effort and accelerating new workflow setup.

Senior Software Developer

PRODUCT ENGINEERING

Apple Inc -> Infosys -> Awign (contract)

2021 - PRESENT (5 YEARS)

Defined Node.js and TypeScript service architecture across shared logistics and cloud services, establishing service boundaries and reliability patterns that supported distributed operations across multiple business domains and production workflows.

Led Kafka-based event and CQRS workflow design for shipment and cloud integrations, increasing processing throughput while isolating failures across asynchronous workflows and downstream service dependencies.

Established domain-driven API contracts and integration standards adopted across shared services and multiple teams, reducing coordination overhead and improving consistency in cross-service evolution.

Senior Software Developer

FINTECH

Pratishthan Ventures -> Infosys (FullTime)

OCT 2021 - MAR 2022

Architected Node.js payment services with Redis, RabbitMQ, and MongoDB for transaction, settlement, and audit workflows, improving reliability and traceability across production payment operations in a regulated financial environment.

Designed asynchronous recovery and failure-handling pipelines for settlement workflows, limiting transaction failure blast radius and improving recoverability across critical payment operations.

Built FX, audit, and calendar services with clear service boundaries and reliable backend patterns, improving maintainability for compliance-sensitive financial systems.

Software Architect / Senior Full-Stack Developer

INDUSTRIAL IOT

Smart Factory

AUG 2019 - SEP 2021

Led backend and telemetry architecture for real-time industrial monitoring systems, improving visibility across machine telemetry flows and enabling faster detection of production-floor issues in live manufacturing operations.

Designed NestJS APIs, WebSocket telemetry services, and Dockerized AWS workloads for real-time monitoring systems, improving response behavior and making production deployments more consistent.

Implemented monitoring, alerting, and logging workflows that improved incident response readiness and strengthened uptime support for operational teams.

Software Engineer / Project Manager

IOT / STREAMING

Neon TSS

OCT 2017 - AUG 2019

Led Wi-Fi streaming platform delivery across firmware and cloud services, coordinating backend, device, and frontend engineering through repeated production release cycles.

Drove migration from PHP/HTML components to Node.js/NestJS and Angular-based applications, improving maintainability and creating a more scalable delivery foundation.

Improved streaming stability and security through authentication, service hardening, and backend modernization patterns, reducing recurring playback and access issues.

CORE TECHNICAL EXPERTISE

Backend:
Node.js, TypeScript, NestJS, Express.js, Java, Spring Boot, REST APIs, GraphQL, WebSockets, Backend Architecture, API Architecture, Performance Optimization, Production Systems

Architecture:
Distributed Systems, Microservices, Event-Driven Architecture, CQRS, Event Sourcing, Domain-Driven Design (DDD), Bounded Context Design, Service Boundary Design, Scalability, Fault Isolation, System Design

Data & Messaging:
PostgreSQL, MongoDB, MySQL, Redis, Kafka, RabbitMQ, Event Streaming, Asynchronous Processing, Distributed Caching, Data Modeling

Cloud & DevOps:
AWS, Azure, Docker, Kubernetes, Terraform, CI/CD, Infrastructure Automation, Container Orchestration, Deployment Automation, Release Engineering

Reliability & Observability:
System Reliability, High Availability, Observability, OpenTelemetry, Distributed Tracing, Prometheus, Grafana, ELK Stack, Monitoring, Alerting, Production Readiness

Platform Engineering:
Platform Engineering, Developer Platforms, Internal Platforms, Developer Experience, Reusable Service Foundations, Service Templates, Runtime Configuration, Release Guardrails, Platform Modernization, Engineering Standards

AI / GenAI:
OpenAI APIs, LangChain, LangGraph, RAG, Semantic Search, Vector Search, Tool Calling, Agentic Workflows, LLM Orchestration, AI Platform Services

ACHIEVEMENTS & IMPACT

Delivered full-stack systems across product, platform, and integration layers with emphasis on maintainability, release quality, and production readiness. Signature examples include Logistics Platform and Banking Payment Processing System.

Converted complex delivery requirements into scalable APIs, modular UI architecture, and reliable deployment workflows aligned to real product outcomes.

Improved engineering throughput through reusable patterns, cleaner service boundaries, and stronger frontend-backend contract discipline.

Balanced hands-on implementation speed with architecture decisions that reduced rework and supported long-term product evolution.

TECHNOLOGY STACK

Frontend:
TypeScript

Backend:
Node.js, NestJS, Express.js, Java, Spring Boot, Go

Architecture:
Distributed Systems, Microservices, Event-Driven Architecture, CQRS, Domain-Driven Design (DDD), Platform Engineering

APIs:
REST APIs, GraphQL, WebSockets, Kafka, RabbitMQ, Redis

DevOps:
AWS, Azure, Docker, Kubernetes, CI/CD, GitHub Actions

AI / Automation:
RAG

LEADERSHIP, STRATEGY & PLATFORM IMPACT

Led architecture reviews and cross-team technical decisions spanning backend services, messaging workflows, platform delivery patterns, and production-readiness standards across shared engineering systems.

Established engineering standards for APIs, observability, deployment quality, and service design that improved consistency across shared systems and teams.

Turned recurring delivery and operability bottlenecks into reusable platform capabilities, guardrails, and standards with cross-team impact.

Aligned product, platform, and delivery stakeholders on architecture and roadmap decisions by making tradeoffs explicit across velocity, reliability, maintainability, and operational risk.

Guided platform modernization through incremental adoption of shared service patterns, observability baselines, and containerized delivery workflows.

KEY DISTRIBUTED SYSTEMS / PLATFORM PROJECTS

Logistics Platform

LOGISTICS PLATFORM — 2023-2026

ROLE

Senior Software Developer (Apple Inc -> Infosys -> Awign (contract))

PROJECT SCOPE

Enterprise logistics platform for shipment workflows, tracking, and operations visibility with distributed services, event-driven processing, domain-aligned service boundaries, and customer-facing status journeys.

KEY CONTRIBUTIONS

Designed shipment lifecycle APIs and backend service flows covering the core order-to-delivery workflow, using clear bounded contexts and maintainable service contracts for business-critical logistics operations.

Delivered Angular and React workflow surfaces for logistics operations, aligning UI behavior with backend service contracts to improve tracking accuracy and reduce integration drift across operational dashboards.

Built Next.js customer shipment-visibility flows on top of event-driven backend contracts, improving consistency between internal operations state and customer-facing status journeys.

AWS Infrastructure Management

CLOUD INFRASTRUCTURE — 2021-2023

ROLE

Senior Software Developer (Apple Inc -> Infosys -> Awign (contract))

PROJECT SCOPE

Cloud infrastructure management platform for secure provisioning, governance, environment operations, and cloud delivery workflows across AWS-first environments with Azure-aligned deployment considerations.

KEY CONTRIBUTIONS

Developed Spring Boot and Node.js services to automate infrastructure provisioning, governance workflows, and internal platform operations across shared non-production and production environments.

Built Angular dashboards and Vue.js/Nuxt.js admin views for environment visibility, access workflows, and infrastructure operations.

Integrated AWS services (EC2, S3, IAM, Load Balancer) with PostgreSQL and Redis-backed orchestration while keeping cloud service abstractions portable for broader platform delivery.

Banking Payment Processing System

FINTECH — 2021-2022

ROLE

Senior Software Developer

PROJECT SCOPE

Event-driven payment processing platform with auditability, resilient workflows, and domain-centric transaction services.

KEY CONTRIBUTIONS

Engineered Node.js payment services with RabbitMQ and Node-RED for event-driven, fault-tolerant processing across transaction, FX, settlement, and audit-related financial workflows.

Built FX, holiday-calendar, and audit modules with MongoDB and Redis-backed workflows for resilient service operations and clearer domain separation.

Improved transaction traceability through auditable event pipelines, service-level logging, and asynchronous processing patterns aligned to CQRS-style flows, reducing manual investigation effort during issue analysis.

CI/CD & Deployment Automation

DEVOPS — 2021-2022

ROLE

Solution Architect

PROJECT SCOPE

Automated pipelines for build, test, deployment, and release governance across distributed services.

KEY CONTRIBUTIONS

Standardized Jenkins, AWS CodeDeploy, GitLab CI, and Docker-based delivery pipelines for repeatable releases across shared services and backend environments.

Reduced deployment errors, manual handoffs, and release friction by replacing ad hoc release steps with consistent build, validation, and deployment workflows.

Improved delivery governance by formalizing build, validation, and deployment workflows.

Backendless REST & WebSocket Platform

API PLATFORM — 2020-2021

ROLE

Backend Architect

PROJECT SCOPE

Unified REST and WebSocket platform for multiple clients with reusable backend building blocks and real-time communication support.

KEY CONTRIBUTIONS

Designed a reusable NestJS and Express-based backend platform to accelerate delivery across multiple client implementations with shared authentication, API, and real-time communication patterns.

Implemented JWT-secured REST APIs, reusable API templates, and standardized backend patterns for maintainability.

Enabled WebSocket channels for real-time communication use cases across shared backend services.

SYSTEM ARCHITECTURE EXPERIENCE

Defined target-state service architecture with clear bounded contexts, ownership boundaries, and maintainable API contracts for distributed backend systems.

Led event-driven design using Kafka, RabbitMQ, Redis, and asynchronous workflows to improve failure isolation, throughput, and operational resilience.

Applied API gateway and backend-for-frontend patterns to simplify service integration, support product evolution, and reduce coupling across interfaces.

Established observability baselines spanning distributed tracing, centralized logging, monitoring, alerting, and diagnostics for production-grade systems.

Designed for availability and recoverability through failure-domain isolation, caching, resilient processing, and reliability-focused deployment patterns.

Balanced synchronous and asynchronous data consistency tradeoffs with auditability and eventual-consistency-oriented workflows in domain-critical systems.

PLATFORM ENGINEERING EXPERIENCE

Defined CI/CD standards and release guardrails across distributed services to improve deployment predictability, governance, and production readiness.

Established container-first deployment patterns with Docker and Kubernetes-ready workloads as the paved road for scalable platform operations.

Built reusable backend foundations, shared API templates, and configuration-driven platform capabilities that reduced repeated engineering effort across teams.

Improved developer productivity through platform conventions for APIs, messaging, observability, and deployment practices that increased consistency by default.

EDUCATION

MCA, ISBM University
2025 - PURSUING

Master of Computer Applications (ongoing).

BCA, BNPG College
2010-2012

4th Position in Programming Competition in 1st Year.

ATS KEYWORDS

Principal Engineer, Platform Engineering, Backend Architecture, Distributed Systems, Reliability, Observability, Event-Driven Architecture, CI/CD, Technical Direction, Cross-Team Leadership, Distributed Systems Architecture, Event Sourcing & CQRS Patterns, Domain-Driven Design (DDD) & Tactical Patterns, Bounded Context & Service Boundary Design, Microservices & Messaging-Based Integration, Observability, Reliability & Fault-Tolerant Systems, Distributed Tracing, Logging & Monitoring Strategy, Cloud-Native Platforms, Kubernetes & CI/CD, Developer Platforms & Reusable Backend Foundations, Cross-Team Technical Leadership & Architecture Governance, Engineering Strategy, Modernization & Technical Roadmaps, TypeScript, Node.js, NestJS, Express.js, Java, Spring Boot, Go, Microservices, CQRS, Domain-Driven Design (DDD), REST APIs