

Dwarka Prasad Bairwa

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Professional Summary

Lead Software Engineer with 4+ years building real-time, production-grade web applications in Java, Spring Boot, Angular, and Kubernetes. Led an 8-project Docker-to-Kubernetes migration using Infrastructure as Code that lowered infrastructure cost 18% and incidents 80%, optimized data pipelines from 74ms to 20ms at ~100k events/sec, and re-platformed WebRTC media for an RBI-compliant video-KYC service. Works in Agile/Scrum; promoted twice in two years and now leads a team of 6 engineers, owning production releases on AWS.

Education

Indian Institute of Information Technology, Guwahati

Aug 2018 – May 2022

B.Tech. in Computer Science and Engineering

Experience

Lentra AI Pvt. Ltd.

Jan 2022 – Present

Lead Software Engineer

Java, Spring Boot, Angular, Kubernetes, WebRTC/LiveKit, Kafka, ClickHouse, AWS

Progressed from Software Engineer → Senior Software Engineer → Lead Software Engineer (promoted twice in two years).

- Led an Infrastructure-as-Code migration of **8 mixed-stack projects** (Spring Boot, Node.js, Python, Flutter) from Docker Swarm to **Kubernetes**, using Terraform, Helm, and versioned K8s manifests.
- Authored Jenkins CI/CD pipelines for each service, lowering infrastructure cost **18%** and infra-related incidents **80%**.
- Architected a video-KYC and video personal-discussion platform on Spring Boot microservices with an Angular frontend, serving real-time banking journeys.
- Engineered a real-time journey-monitoring system with Java REST APIs, improving reliability and reducing downtime **30%**.
- Drove production release fixes and root-cause analysis during high-traffic festive seasons, coordinating client stakeholders to safeguard uptime under peak load.
- Developed a high-throughput URL-shortening service in **Lua** and automated recurring jobs with Kubernetes CronJobs.
- Mentored a team of **6 engineers** in an Agile/Scrum environment, running code reviews and resolving critical cross-functional issues.

CKELP Technologies Pvt. Ltd.

May 2021 – Aug 2021

Flutter Developer Intern

Flutter, Dart, Git, MongoDB

- Developed and maintained a video-call mobile application using Flutter, delivering a seamless cross-platform user experience.
- Integrated REST APIs in Dart and optimized MongoDB queries, achieving a **20%** improvement in data retrieval speed.
- Delivered application updates, bug fixes, and UI/UX enhancements for a polished, user-friendly interface.
- Implemented social-media integrations, including Facebook login, to improve user engagement and streamline onboarding.
- Owned the release-management process, ensuring timely and efficient deployment of new features.

Projects

Video-KYC

Jan 2022 – Ongoing

- Developed RESTful Java/Spring Boot microservices (Spring Security, JWT) powering a video-KYC platform at **500–600 sessions/day** across multiple banking clients.
- Ensured **RBI video-KYC compliance**, implementing **AES symmetric encryption** for customer data in transit and at rest.
- Improved the Angular UI with MongoDB as the primary datastore and Redis caching, optimizing data retrieval and storage.
- Engineered core frontend functionality for video and audio streaming using WebRTC and WebSocket.
- Migrated the media stack from **Kurento to LiveKit**, re-architecting backend services and call-handling workflows for improved scalability and call quality.

- Enabled event-driven inter-service communication using Kafka, strengthening interoperability and real-time data processing.
- Automated CI/CD with Jenkins in Docker-based environments, reducing deployment times and manual effort.
- Wrote unit tests with JUnit and Mockito, increasing test coverage and reducing production defects.
- Led deployments with Docker Swarm, Jenkins, and Nginx, streamlining releases and ensuring high availability.
- Managed deployment on AWS EC2, optimizing resource usage and reducing server response time by **20%**.

API Observability Platform

Apr 2023 – Present

- Architected an observability service using Kafka, Telegraf, and Grafana, enabling real-time monitoring of internal APIs and tracking of customer journeys.
- Migrated the time-series store from **InfluxDB to ClickHouse**, sustaining ingestion of **~100k events/sec** and powering low-latency real-time Grafana dashboards.
- Re-engineered the Kafka ingestion SDK, reducing data-ingestion latency from **74ms to ~20ms** ($\approx 73\%$).
- Created an integration SDK that simplified API instrumentation across teams, reducing integration time by **40%**.
- Deployed the full-stack application on AWS EC2 via a containerized cluster, earning recognition as **Best Project of the Year**.

Skills

Languages: Java, JavaScript, TypeScript, Python, SQL, Lua, Dart, C++, Shell Script

Backend & Frameworks: Spring Boot, Spring Security, REST APIs, Microservices, JPA/Hibernate, JWT/OAuth2, Node.js, Maven/Gradle, OpenAPI/Swagger

Frontend & Mobile: Angular, HTML, CSS, Flutter

Real-Time & Media: WebRTC, WebSockets, LiveKit, Kurento (KMS), Coturn

Messaging & Streaming: Apache Kafka, Kafka SDK optimization

Databases: MongoDB, MySQL, PostgreSQL, Redis, ClickHouse, InfluxDB

Cloud & DevOps: AWS (EC2, S3, Amplify), Kubernetes, K8s CronJobs, Terraform, Helm, Docker, Docker Swarm, Jenkins, CI/CD, Nginx, Podman, Linux, Git

Observability & Quality: Grafana, Telegraf, ClickHouse, MinIO, SonarQube, JUnit, Mockito

Security & Compliance: RBI Video-KYC compliance, AES symmetric encryption, data encryption (in transit & at rest)

Practices & Methodologies: Agile/Scrum, Infrastructure as Code, CI/CD, Event-Driven Architecture, API Design, Performance Optimization, Scalability, Root Cause Analysis, Incident Response, Stakeholder Management, Code Reviews, Microservices Architecture

Awards & Recognition

- Awarded the **Extra Miler**, placing in the top **1%** company-wide for exceptional performance.
- Promoted twice in two years — from Software Engineer to Senior Software Engineer to **Lead Software Engineer** — based on performance and technical leadership.
- Led the Observability project, earning **Best Project of the Year** for enhancing system monitoring.

Certifications

- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning.
- Applied Text Mining in Python.