

PRAJWAL K

Senior Software Engineer | Distributed Systems | Platform Engineering

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PROFESSIONAL SUMMARY

Senior Software Engineer with 5.5+ years of experience designing and scaling distributed backend systems and cloud-native platforms. Proven contributor to high-reliability systems across regulated and large-scale environments. Strong expertise in Java microservices, cloud infrastructure, system reliability, and applied AI, with demonstrated ownership through end-to-end system development and independently led engineering initiatives.

PROFESSIONAL EXPERIENCE

Capgemini — Software Engineer / Development Specialist (Java Full Stack)

Client: Standard Chartered Bank | Apr 2024 – Dec 2025

- Designed and optimized Java 17 cloud-native microservices for real-time and batch processing on a 24/7 global platform, handling 3,000+ TPS with strict latency and availability requirements.
- Owned development across core processing stages including ingestion, routing, real-time processing, batch orchestration, and settlement, supporting systems deployed across 30+ country markets.
- Implemented deterministic validation logic, automated sanity checks, and robust error-handling mechanisms for RTGS outward, inward, bulk, and batch flows, reducing production defects and manual intervention by ~30–40% during releases.
- Led modernization of legacy EJB/Camel-based components into Spring Boot microservices on OpenShift, improving maintainability, deployment consistency, and release stability via zero-downtime CI/CD pipelines using Azure DevOps.
- Enhanced observability using centralized logging and monitoring (Elasticsearch/Kibana), reducing MTTR by ~25–30% and improving overall production reliability.

Boeing India

Software Engineer – Full Stack (Aerospace Systems) | Sep 2021 – Mar 2024

- Developed and maintained aerospace-grade backend services using Java and Spring Boot for navigation and geospatial platforms under stringent quality, reliability, and safety standards.
- Designed and optimized data pipelines using PostgreSQL, MySQL, and Amazon S3, improving performance and availability of large geospatial datasets.
- Built responsive Angular-based user interfaces supporting internal aerospace engineering workflows.
- Specialized in geospatial data handling and visualization using GeoPackage, OpenStreetMap, and OpenLayers for navigation map generation.
- Implemented secure REST APIs with JWT-based authentication and enterprise security proxies.
- Automated UI testing and integrated CI/CD quality gates using Playwright, Coverity, SonarQube, GitLab, and Bamboo to improve release confidence.
- **Achievements:** Exceptional Performance Award; Wall of Fame Recognition (AvionX Navigation Database Generator Utility).

Finastra Software Solutions

Associate Software Engineer | Sep 2019 – Mar 2021

- Contributed to development and integration of **core banking and payment modules** (*SWIFT, UKFPS, ATM, Trade Finance*) using **Java 8 and J2EE**.
- Worked with **Oracle and IBM DB2 databases** to support **enterprise transaction workflows** and optimize queries and supported **CI pipelines using Jenkins**, improving build stability and delivery efficiency.

INNOVATION, LEADERSHIP & COMPETITIONS

Google Agentic AI Hackathon – Capgemini (Jul 2025 – Oct 2025)

Project: *Glide Guild – Airbus Use Case*

- Independently led the design and prototyping of a **multi-modal semantic similarity search system** for **aircraft maintenance manuals and schematics**.
- Defined **end-to-end architecture and AI workflows** using **GCP Vertex AI Vector Search, Document AI, FastAPI, Docker, and Cloud Run**.

NASA Space Apps Challenge 2025 (Jul 2025 – Oct 2025)

Project: *ExoNovaPioneers – A World Away: Hunting for Exoplanets with AI*

- Independently led and executed an **AI-driven exoplanet exploration platform** combining **ML-based habitability scoring** with **interactive 3D and AR/VR visualizations**.

Gen AI Innovation Challenge – Capgemini (Aug 2024)

Winner – *Most Innovative Solution*

- Recognized for proposing **QuantumWealth**, a **GenAI solution** leveraging **quantum-inspired optimization concepts**.

TECHNICAL SKILLS

Languages: Java (primary), Python

Backend & Platform Engineering: Spring Boot, Microservices, REST APIs, FastAPI

Cloud & Infrastructure: AWS, Google Cloud Platform, Azure DevOps, Docker, Kubernetes (OpenShift)

Data & ML Systems: PostgreSQL, Oracle, Elasticsearch, Scikit-learn, XGBoost

Frontend & Visualization: Angular, React, Three.js

Quality & Tooling: Playwright, SonarQube, Coverity

Geospatial Systems: GeoPackage, OpenStreetMap, OpenLayers

CERTIFICATIONS

Aerospace & Defense Level 1 – Capgemini Industry Certification

Microsoft Azure AI Fundamentals (AI-900)

IBM RAG and Agentic AI

Microsoft Full Stack Developer

IBM AI Engineering

EDUCATION

Bachelor of Engineering – Electronics & Communication

AMC Engineering College (VTU), Bengaluru | 2019