KAPIL HADOLTIKAR

Backend Engineer | Java Distributed & Cloud Native Systems *Available to Join Immediately*

Bengaluru, India | +91 7888155779 | kapilh.cdac@gmail.com | Portfolio | GitHub | LinkedIn

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Performance-driven Backend Engineer specializing in Java 21 and Cloud-Native distributed architectures. Engineered a production-grade payment gateway achieving **38% cloud-cost reduction** and **P95 latency <50ms** using GraalVM and Virtual Threads. Expert in building **PCI-DSS compliant** systems with a focus on high-throughput database routing and event-driven reliability. **Immediate joiner** committed to 90%+ code coverage and rigorous CI/CD standards.

SOFTWARE DEVELOPMENT PROJECTS

Production-Grade Distributed Payment Engine | GitHub

- **Hybrid Runtime Optimization**: Engineered a hybrid deployment strategy using **GraalVM Native Image** for the Control Plane **(0.4s cold starts)** and **standard JVM** for the Data Plane, reducing cloud infrastructure costs by **38%** through optimized pod density (GraalVM Native for scaling/JVM for throughput).
- **Fraud Prevention**: Integrated an **XGBoost model via ONNX runtime** implementing a Dual-Inference Engine (Champion-Challenger) into a Java-based fraud service, leveraging **Java 21 Virtual Threads** for concurrent feature engineering to achieve a **P95 latency of <50ms.**
- **Data Security & Compliance**: Designed a **PCI-DSS Level 1 scoped Vault Service** using **AES-256-GCM** encryption, ensuring sensitive cardholder data is isolated within a minimal, static binary attack surface.
- **High-Throughput Architecture**: Implemented **AOP-based Data Source routing** to distribute traffic between Primary and Secondary PostgreSQL instances, increasing system read throughput by **40%**.
- **Event-Driven Reliability**: Utilized **Kafka for Event Sourcing** and RabbitMQ for webhook delivery with exponential backoff and Dead Letter Queues (DLQ), ensuring **99.99% transaction reliability**.
- Established CI/CD Rigor with a "Gatekeeper" pipeline in GitHub Actions, maintaining a project-wide **93% code coverage** (Jacoco) through automated unit, integration, and contract testing.

Accent (System Automation Tool) | GitHub

- Developed a background utility using **JavaFX** and **AWT** to bridge the gap between Java and Windows system-level theme settings.
- Engineered a custom **PowerShell-to-Registry** bridge to toggle System Dark/Light modes, achieving instant UI updates across the OS without requiring a restart.

TECHNICAL SKILLS

- **Languages:** Java 21/25 (LTS), SQL (PostgreSQL), Bash, Python (ONNX/XGBoost integration).
- **Frameworks & Core Java:** Spring Boot 3.x (Cloud, Security, Data, AOP), Hibernate/JPA, JUnit 5, Mockito.
- **Distributed Systems:** Microservices, Saga Pattern (Choreography/Orchestration), Event Sourcing, Idempotency Management.
- **Messaging & Middleware:** Apache Kafka (Event Store), RabbitMQ (Webhooks/DLQs), Redis (Caching).

- **Cloud & Infrastructure:** GraalVM (Native Image), Docker, Kubernetes, GitHub Actions (CI/CD), Maven/Gradle.
- **Security & Observability:** AES-256-GCM Encryption, PCI-DSS Level 1 Compliance, OAuth2/JWT, OpenTelemetry, Prometheus, Tempo.

EDUCATION

Post Graduate Diploma in Advanced Computing (PG-DAC) *Center for Development of Advanced Computing (C-DAC), Hyderabad* | Feb 2024

- *Coursework:* Advanced Java, Microservices, Cloud Computing, Database Technologies.

Bachelor of Engineering - Mechanical Engineering *M. S. Bidve Engineering College, Latur* | May 2021

- Developed strong analytical problem-solving skills and experience with complex system modeling.