

**Abhimanyu Kumar**

**Email:** [stream.abhimanyu@gmail.com](mailto:stream.abhimanyu@gmail.com)

**Phone:** [+91] 8789929244

**LinkedIn:** <https://www.linkedin.com/in/abhimanyu-kumar-5455ab163/> | **GitHub:** <https://github.com/abhimanyu-stream>

**Portfolio:** <https://abhimanyu-profile.vercel.app/>

Hazaribagh, Jharkhand, India

**Seeking senior-level roles in Java Backend, Technical Architecture, and Machine Learning Engineering**, building scalable, event-driven.

## Professional Summary

**Experienced Java Backend Engineer (7+ years)** skilled in designing and developing **high-performance, event-driven systems**.

Specialized in **microservices, multi-module and monolithic architectures**, and **Kafka-based asynchronous processing**.

Expert in **secure API development** using **Spring Boot 3, Spring Framework 6, and Hibernate 6**, **SOLID principles, Test-Driven Development (TDD), modern design patterns, cloud-native tools, and domain-driven design (DDD) principles**.

## Core Skills

- **Languages:**  
Java (17/11/8/6/5/4), Python, C/C++, Rust
- **Scripting:**  
Bash, Python, PowerShell, JavaScript (Node.js), Bat
- **Frameworks & Tools:**  
Spring Boot 3, Spring Security 6, Hibernate 6, JPA, Axum (Rust), JasperReports
- **Kafka Ecosystem (Real-Time Data Platform):**  
Apache Kafka (KRaft & Zookeeper modes), Kafka Connect (Debezium, JDBC, Elasticsearch, MongoDB connectors), Kafka Streams (microservices integration), Schema Registry (Avro), KStream, KTable  
Kafka REST Proxy, AKHQ / Confluent Control Center, Prometheus + Grafana (Kafka metrics), TLS/SASL security, (DLQ), Single Message Transforms (SMT)
- **Messaging & Streaming:**  
RabbitMQ, Apache Kafka, Kafka Stream API, Apache Storm (Spouts/Bolts), Storm-Kafka Integration
- **Data Integration & Search:**  
Kafka Connect, Debezium CDC, Elasticsearch, Redis, MongoDB, MySQL, PostgreSQL
- **Cloud & DevOps:**  
AWS (EC2, VPC, IAM, S3), Docker, Prometheus, Grafana, ELK Stack, Swagger / OpenAPI, CI/CD (GitHub, Jenkins), Linux Administration
- **Architecture & Patterns:**  
Microservices, Monolithic, Multi-Module, Outbox Pattern, Factory, Strategy, Singleton, Proxy, Adapter, Resilience4j
- **Concurrency & Async Processing:**  
CompletableFuture, ExecutorService, Thread Pools, ThreadLocal, Context Propagation
- **Security:**  
OAuth2, JWT, HTTPS/TLS, OWASP Guidelines, Secure Headers
- **Data Engineering & Pipelines:**  
Kafka + Spark Streaming, Airflow, DVC, Parquet, Delta Lake, AWS

## Professional Experience:

### Software Developer — Eazypaymentz (Payment Gateway Integration)

Analytiq Business Ventures | Remote | Sep 2022 – Feb 2023

Tech: Java 17, Spring Boot 3, Kafka, Redis, Elasticsearch, RabbitMQ, AWS, OAuth2, OIDC, JWT

- Engineered Zero Trust–compliant PAYIN/PAYOUT/ADMIN APIs, enforcing authentication and authorization on every request using OAuth2 + OIDC, independent of network or service origin.
- Implemented role-based (RBAC) and scope-based authorization using JWT claims, enabling fine-grained access control for admin, merchant, and system-level operations.
- Designed user tokens and service tokens with strict audience (aud) restriction and short TTLs, ensuring APIs accepted tokens only from intended callers and minimizing blast radius on compromise.
- Secured service-to-service communication using OAuth2 Client Credentials flow, eliminating shared secrets and enabling identity-centric machine authentication.
- Implemented JWT validation at the application layer, verifying signature, issuer (iss), audience, scopes, and expiry locally via JWKS without runtime IdP dependency.
- Enforced end-to-end encryption using TLS 1.2+ for all API traffic, with optional payload-level encryption using public/private key pairs for sensitive payment and PII fields.
- Integrated cryptographic key rotation for JWT signing and service encryption keys, supporting multiple active keys via kid headers and seamless rotation without downtime.
- Hardened APIs with rate limiting, contextual identity-based logging, and audit trails, ensuring all access was traceable to a user or service identity rather than IP address.
- Zero Trust security guarantees across Kafka-driven, event-based payment workflows.
- Implemented Debezium + Outbox pattern ensuring atomic message delivery and DB consistency.
- Deployed Elasticsearch search layer, cutting report latency by 80 %.
- Built Storm + Kafka fraud-detection pipeline, processing 15 K+ events/s.

### Senior Java Developer — E-commerce & Food Delivery Systems

Appizum Technology | Remote | Jan 2019 – Aug 2022

Tech Stack: Java 11, Spring Boot, PostgreSQL, Redis, RabbitMQ

- Architected and developed modular microservices for cart, checkout, payment, and delivery
- Leveraged RabbitMQ for notification delivery and Redis for session storage and rate limiting
- Enabled Elasticsearch-based search on menu items and restaurant metadata
- Integrated OAuth2/JWT based login and RBAC with Spring Security
- Wrote extensive test coverage with JUnit5 & Mockito; integrated with Postman automated suites
- Designed API contracts and documented all endpoints using Swagger/OpenAPI
- Conducted query profiling and optimization to improve DB performance and resolve timeouts
- Guided junior developers and contributed to code reviews, refactoring, and mentorship

## Java Developer — CLMS | Hunar

Strategic outsourcing services [client: JAPIT] (Govt. Project) | (On-site) | Oct 2018 – Dec 2018

Tech Stack: Java 8, Spring Boot, MySQL

- Developed backend modules for the government training scheme tracking
- Used Spring MVC and Hibernate with custom HQL/native SQL for complex queries
- Designed JasperReports-based dynamic PDF generation and automated email delivery
- Configured role-based access control and user session management
- Ensured data integrity, input validation, and exception handling across all modules

## Software Engineer — Doctor Appointment Booking System

ITZ Software Technologies (On-site) | Apr 2015 – Mar 2017

Tech Stack: Java 8, Spring Boot, MySQL

- Developed REST APIs for a Doctor Appointment Booking System with dynamic slot scheduler
- Integrated payment gateway APIs with support for refunds and transaction audits
- Fixed N+1 query issues and used Hibernate second-level caching to improve performance
- Designed and deployed services to AWS EC2, managed AMIs and environment configurations
- Built internal tools for doctor availability tracking and admin reporting

## Junior Developer — SkillThrust

Avancosys (On-site) | Nov 2012 – May 2013

Tech Stack: Java 6, Spring 3.2, Hibernate, MySQL, AWS, DynamoDB

- Contributed to social platform “SkillThrust” with features like chat, geolocation, and reviews
- Used Google Maps API for live tracking and calendar scheduling for events
- Implemented OTP-based registration, social login (Google/Facebook), and access control
- Created validation utilities to handle anti-spam, input sanitization, and secure storage
- Supported deployment using AWS EC2/S3, worked closely with the frontend team (JSP/jQuery)

## Self-Initiated Projects

### Fraud-Detection Pipeline (Java 17 • Spring Boot 3 • Kafka • Storm)

Jan 2025 – Present

Stack: Java 17, Spring Boot 3, Apache Storm 2.4, Kafka, Elasticsearch 8, Redis 7, MySQL 8, Docker, Prometheus/Grafana, JUnit 5

- Built a sub-second fraud-scoring pipeline handling 15 K+ events/s with real-time enrichment and ML-based risk scoring.
- Developed fraud-enrich-svc (Web Flux + R2DBC + MySQL) achieving p99 < 40 MS at 3 K RPS.
- Designed Storm topology (3 Nimbus / 6 Supervisors) with exactly-once semantics via Storm-Kafka API.
- Indexed enriched data in Elasticsearch 8 (7-day ILM) and built Kibana dashboards with ≤ 2 s response SLA.
- Used Redis Streams + Lua for atomic high-risk alert broadcasts (P99 3 MS).
- Added Micrometer + Grafana metrics for throughput, lag, JVM GC, and topology health.

- CI/CD: GitHub Actions → Docker → Helm on Kubernetes (blue-green deploys).

## **AI-Enhanced Trading Platform (Java 17 • Spring Boot 3 • Python ML)**

Mar 2025 – Present

Stack: Java 17, Spring Boot 3, Python ML, React / Next.js, TypeScript, MongoDB, Redis, Kafka, FreqTrade

- Achieved 100 % win-rate (59/59 trades) using 6-model ensemble (Prophet, LSTM, GRU, CNN-LSTM, Attention-LSTM, Bi-LSTM).
- Built microservices backend (Spring Boot 3 + MongoDB + Redis + Kafka).
- Integrated FreqTrade for live trading with < 3 s latency.

Trading Bot Dashboard (Frontend):

- Next.js 15 + React 19 (TypeScript) with Tailwind CSS + Radix UI.
- Real-time WebSocket charts (Recharts) and responsive UX.

## **Luxury Real Estate Platform (Next.js 15 • React 19 • TypeScript)**

Jun 2025 – Present

- High-end property showcases for Los Angeles market with 25+ pages / 20+ components.
- Glass-morphism UI, lazy loading, SEO, and image optimization.
- MLS-style filtering, property modals, and client scheduling tools.

## **Learn Ink – SaaS LMS Platform (Java 17 • Spring Boot 3 • Kafka)**

Feb 2024 – Present

Stack: Java 17, Spring Boot 3, Kafka, Redis, MongoDB, Elasticsearch, MySQL, React / Next.js

- Architected multi-tenant LMS with course modules, instructor dashboards, and payments (Stripe + Razorpay).
- Implemented Kafka-based notification engine + real-time Elasticsearch analytics.
- Applied CQRS pattern (MySQL write / MongoDB read models).

## **Secure File Sharing API (Rust • Axum • PostgreSQL)**

Feb 2023 – Feb 2024

Stack: Rust, Axum, SQLx, PostgreSQL, Tokio, JWT, AES

- Designed encrypted file-sharing API with expiring links and AES encryption.
- Built on Axum + Tokio for high-performance async I/O.
- Implemented JWT auth, metadata tracking, and scheduled cleanup jobs.

## **Education**

- MCA – University of Pune (2008–2011)
- B.A. Economics (Statistics) – St. Columba's College, Hazaribagh (2007)

## **Learning**

- Ongoing: System Design, CI/CD[DevOps], AI/ML LLM with {Java, C++, Rust, Python} + MLOps ,Azure

**Date:** February 2026

**Name:** Abhimanyu Kumar