

# AKASH JAIN

## Senior Backend Developer | Java · Kotlin · Azure · Kafka

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**Personal Details:** Oslo, Norway · Languages: English, Hindi, Norwegian (A1)

**Education:** Bachelor of Engineering (Computer Science), 2007–2011

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## SUMMARY

Senior Backend Engineer with 13+ years of experience in Java, Kotlin, Spring Boot, microservices, and distributed systems. Specialized in secure payment workflows, identity systems, event-driven architecture, and high-scale logistics platforms.

### Proven expertise in:

- Designing fault-tolerant distributed systems, payment resiliency, and idempotency.
  - Performing zero-downtime migrations, infrastructure modernization, and cloud-native transformations.
  - Architecting scalable, real-time microservices with strong observability and operational excellence.
  - Delivering complex projects on time and within budget, across both Agile and Waterfall environments.
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## CERTIFICATIONS

- Microsoft Certified: Azure Developer Associate
- Microsoft Certified: Azure Fundamentals
- GitHub Foundations
- The Nuts and Bolts of OAuth 2.0
- Docker for the Absolute Beginner – Hands On – DevOps
- Kubernetes for the Absolute Beginners – Hands On

## HONORS & AWARDS

- TCS AI Spark Award
- On The Spot Award (x2)
- Special Initiative Award

## KEY ACHIEVEMENTS

- Experienced across diverse domains including **credit cards** (Amex), **airlines** (British Airways), **travel booking platforms** (Expedia), **private banking** (Credit Suisse), **investment banking** (Barclays), and **logistics** (Posten Bring).

- Modernized **GDPR compliance** by building **event-driven** data-cleanup and cross-service data-synchronization pipelines, ensuring automated and consistent governance.
  - Led cloud migration of legacy systems to Azure Kubernetes and PostgreSQL with zero downtime, and standardized DB deployments using Liquibase, replacing manual CLI-based operations.
  - Designed a **distributed event retry engine** with scheduled exponential backoff, improving system resilience and cutting repeated API failure retries by **~90%**.
  - Implemented **idempotency tokens** across payment flows, eliminating duplicate purchase events and reducing double-payment incidents to **zero**.
  - Decomposed a large monolith into **domain-driven microservices** using the strangler pattern, enabling independent scaling and faster deployments.
  - Re-architected the **parcel tracking service** into an event-driven system, reducing latency from **>10s to <2s (P99)** and **>50s to <5s (P99.9)** for millions of users.
  - Redesigning the **parcel sharing service** to support all parcel delivery types, enhancing customer experience and platform flexibility.
  - Designed and launched a **Backoffice Service** enabling customer support teams to create, track, and resolve customer cases efficiently.
  - Built a **Kafka-based delivery-instruction enrichment engine** that automatically applies delivery preferences to parcels with no manual intervention.
  - Improved performance across parcel/user domains by resolving database bottlenecks, cutting response times by **40–60%**.
  - Contributed actively to architecture decisions, modernization initiatives, and CI/CD improvements across the engineering organization.
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## TECHNICAL SKILLS

**Senior Backend Competencies:** Scalability, High Availability, Distributed Systems, Event-Driven Architecture, System Design, API Design, Observability (Logs/Tracing/Metrics), Security Best Practices, Performance Tuning, Cloud-Native Architecture, CI/CD Automation, Resilience Engineering, Fault Tolerance, Caching Strategies, Blue-Green Deployments, Domain Modeling

**Backend:** Java, Kotlin, Spring Boot, Microservices, REST APIs, Kafka, TDD, DDD, MockK, Kotest, BDD

**Database:** PostgreSQL, Oracle, PL/SQL, Liquibase, schema refactoring, DB optimization

**Cloud / DevOps:** Docker, Kubernetes, Azure DevOps, GitHub Actions, CI/CD, Maven, Gradle

**Frontend:** React, JavaScript, TypeScript (contributed to UI features for end-to-end delivery)

**Tools:** Git, GitHub, Bitbucket, Jenkins, TeamCity, Jira, IBM MQ, Git, GitHub, Bitbucket, Jenkins, TeamCity, Jira, IBM MQ, Control-M

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## EXPERIENCE

### Senior Backend Developer — Posten Bring AS (TCS)

**Nov 2019 – Present**

Technologies: Java, Kotlin, Spring Boot, Kafka, PostgreSQL, React, Azure DevOps, Liquibase, GitHub Actions, Docker, Kubernetes, Git, Maven, Gradle, Datadog, Elasticsearch, JetBrains Exposed, Mockk, Kotest, JUnit5, Wiremock, Liquibase, Resilience4j, Shedlock, Redis, Caffeine, Kafka

## Key Contributions:

- Designed and owned backend microservices for logistics operations, parcel tracking, and user services.
- Built real-time parcel event ingestion using Kafka, enabling improved tracking accuracy.
- Integrated secure payment flows with Adyen & NETS supporting recurring and scheduled payments.
- Migrated multiple legacy services to Azure Kubernetes and PostgreSQL Flexible Server.
- Ensured GDPR compliance within user services and optimized DB queries to remove performance bottlenecks.
- Actively contributed to architectural improvements and modernization of CI/CD pipelines.

**Scale & Impact:** Services used by **7M+ users** and process **millions of parcel events daily**.

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## PROJECTS

### Distributed Event Retry Engine with Scheduled Backoff

- Built a PostgreSQL-backed retry queue storing failures with metadata (retry count, delay, reason).
- Implemented dynamic backoff logic (10s → 30s → 5m → 30m → 1h) and ensured single-pod execution using ShedLock.
- Reduced manual intervention and improved eventual consistency across external API integrations.

### Payment Idempotency for Purchase API (Adyen/NETS)

- Eliminated double charges on iOS by introducing idempotency keys and safe retry behaviour.
- Removed 100% of duplicate payments and reduced customer service workload.

### Parcel Tracking & Parcel Sharing Services

- Developed services enabling users to track parcels, share pickup permissions, and manage deliveries in apps.
- Enhanced reliability using Kafka-based event pipelines.

### PostgreSQL Migration to Azure + Liquibase Modernization

- Migrated large legacy DB to Azure Flexible Server with schema separation.
- Standardized DB deployments via Liquibase integrated into CI/CD.

### Cloud Migration with NGINX Reverse Proxy

- Led migration from legacy domain to cloud infrastructure with reverse proxy-based traffic redirection.
  - Ensured uninterrupted access and preserved SEO despite domain transition.
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## PREVIOUS EXPERIENCE

### Barclays (TCS) — Java Developer

*Mar 2017 – Oct 2019* - Built Spring Batch/Spring Integration microservices for financial transaction processing via IBM MQ. - Improved Basel III reporting accuracy by resolving cashflow & ledger delays. - Implemented BDD testing with JBehave.

### **Credit Suisse (TCS) — Java Developer**

*Jan 2016 – Feb 2017* - Enhanced invoicing systems using Java, EJB, PL/SQL, and Control-M. - Automated Oracle procedures and Unix scripts to streamline invoicing.

### **Expedia (Cognizant) — Java Developer**

*Oct 2015 – Jan 2016* - Integrated global airline partners and improved booking workflow stability. - Resolved GDS (Amadeus/Galileo) connectivity issues.

### **British Airways (Cognizant) — Java Developer**

*Feb 2012 – Sep 2015* - Enhanced monolithic reporting features and automated claim code generation.

### **American Express (Cognizant) — Java Developer**

*Dec 2011 – Jan 2012* - Built backend modules for automating customer data upload processes.