

# AYESHA DASH

BACKEND ENGINEER - JAVA | SPRING | MICROSERVICES | AWS

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## SUMMARY

Backend Engineer with over 4.11 years of experience in **Java, Spring Boot & Microservices**. Built reliable, high-performance systems using **Kafka, AWS, SQL & NoSQL databases**. Automated CI/CD pipelines with **Jenkins** and **Docker**. Expertise in implementing event-driven workflows using **Kafka** and **RabbitMQ**. Holds an M.Sc. in Advanced Computer Science from the University of York, with expertise in **cybersecurity** and **system resilience**. Currently upskilling on Agentic AI, RAG, LLM. Seeking backend engineering roles focused on designing robust, efficient systems.

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## CAREER HIGHLIGHTS

- Experienced in developing scalable backend systems using **Java** and **Spring Boot**.
- Proficient in relational and NoSQL databases including **PostgreSQL, MySQL, and MongoDB**.
- Hands-on expertise in microservices architecture, **RESTful API, GraphQL**, and backend optimisation.
- Skilled in event-driven systems using **Kafka**, and **Redis**.
- Experienced in implementing secure REST APIs, authentication mechanisms (**OAuth2, JWT**).
- Strong knowledge of **AWS** cloud services including ECS, **Lambda**, and **S3**.
- Practical experience with CI/CD pipelines using Jenkins, **Docker**, and **GitLab**.
- Experienced in **JIRA** for **agile** project management, tracking development tasks, and sprint cycles.

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## EXPERIENCE

**Module Lead Java | Happiest Minds Technologies | India,**

**08/2025 – Present**

Joined as Module Lead, overseeing Java-based development initiatives within the Product and Digital Engineering Services unit.

- Actively upskilling on cloud-native architectures, microservices design, and containerisation technologies (Docker, Kubernetes) to enhance delivery efficiency and system resilience.

**Backend Developer (Freelance) | Let Sell Properties | UK,**

**07/2024 – 07/2025**

Developed a property listing platform to streamline searches, bookings, and agent-user communication. Built REST APIs using Java and Spring Boot, integrated with MySQL, Redis, and third-party services like Google Maps and Calendar APIs. Introduced generative AI to enhance user experience.

- Created **REST APIs** to handle 100+ daily booking requests and user-agent messaging, securing endpoints with JWT authentication.
- Optimised **MySQL** queries for property searches, reducing response times by 20% for 200+ listings; implemented **Redis** caching to support 1000 daily API calls.
- Configured **Kafka** to process 200+ daily events, including appointment confirmations and listing alerts, ensuring real-time updates.
- Integrated **Google Maps API** for location-based searches across 5 UK regions and Google Calendar API to sync agent schedules, reducing booking conflicts by 25%.
- Trained a **generative AI model** to suggest personalised property recommendations based on user search patterns, improving user engagement by 15% for 500+ monthly users.
- Documented 30+ API endpoints using **Swagger**, validated functionality with Postman, and collaborated with 8 developers in agile sprints via **Git** and **JIRA**.

**Gap period - 2022-2024 (Higher Education)**

Enhanced an insurance management system for a major Australian insurer, focusing on fraud detection, dispute handling, and system stability. Deployed services on AWS ECS and **Kubernetes** using Java and Spring Boot.

- Built distributed services to process 500+ daily claims, achieving 99% uptime through **AWS ECS** deployments.
- Improved fraud detection by integrating **Kafka** pipelines to handle 600+ scoring events daily, automating claim triage workflows with Redis.
- Secured authentication with **OAuth2** and **JWT**, reducing login errors by 15% for 100+ internal users.
- Developed dashboards using **Prometheus** and **Grafana** to monitor system health, cutting incident recovery time by 30%.
- Implemented **GraphQL** specifically for optimised data fetching from third-party verification systems.
- Conducted root-cause analysis using **ELK Stack**, resolving 50+ critical issues through hotfix deployments.

### Senior Software Engineer | Capgemini, India,

11/2018 – 03/2021

Developed a policy administration system for an insurer, supporting quote-to-policy issuance for farm, commercial, and personal insurance. Built low-latency APIs and integrated third-party services using Java and Spring Boot.

- Created REST APIs for quote and payment processing, handling 1,000+ daily requests with response times reduced from 1.5s to 0.975s.
- Enhanced billing engines with **Java** and **SQL**, integrating with Stripe to automate recurring payments, subscriptions, and financial product instalment plans.
- Tuned SQL queries and added indexes in **PostgreSQL** to process 10,000+ underwriting records, speeding up policy issuance by 20%.
- Integrated e-signature and **document generation APIs**, enabling digital policy delivery for 1,200+ monthly policies.
- Built automated notifications for overdue payments, improving collection rates by 10% for 500+ delinquent accounts.
- Monitored **system performance** with Prometheus and Grafana, resolving 30+ integration issues with payment gateways and risk scorers.

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## EDUCATION

**M.Sc. in Advanced Computer Science | 2:1 | University of York, United Kingdom** 09/2022 – 02/2024

Relevant Coursework: Cryptography, Cybersecurity, Forensic Analysis, Network Security, User-Centred Design, System Resilience, Human Computer Interaction

**B.TECH. In Electronics & Telecommunication | 3.42 GPA | BPUT, India,** 08/2014 – 05/2018

Relevant Coursework: C, C++, Data Structures, DBMS, Object-Oriented Programming, Operating Systems, Artificial Intelligence.

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## TECHNICAL SKILLS

### Programming & Frameworks

Java 21, Python, SQL, Spring Boot 3, React, Fast API

### Database & Messaging

PostgreSQL, MySQL, MongoDB, Redis, Kafka

### Cybersecurity

Malware Analysis & Threat Detection, OWASP, Cryptography, IAM, OAuth2, JWT

### Network security

TLS, VPN, IDS/IPS, Packet Analysis (Wireshark, Nmap)

### Monitoring & Security

Prometheus, Grafana, ELK Stack, OAuth2, JWT

### Tools & Technologies

JIRA, GitLab, Postman, Swagger, Scrum, Kanban

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## CERTIFICATIONS

**Oracle Certified Java SE8 Programmer | AWS DevOps & CI/CD Automation (LinkedIn Learning) |  
Guidewire Specialist – BillingCenter 10.0 Configuration | Guidewire Specialist – PolicyCenter 10.0  
Configuration**