Jyotirmay Kumar

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Summary:

Results-driven Principal Software Engineer with 13+ years of experience in designing and developing scalable, event-driven microservices and cloud-native applications. Skilled in leading engineering teams and utilizing a diverse tech stack, including Java, Spring Boot, RabbitMQ, and Pivotal Cloud Foundry (PCF), to deliver high-performance solutions. Demonstrated success in optimizing system performance, reducing processing times, and implementing innovative, cost-effective solutions that drive business outcomes.

Key Skills:

- Programming Language: Java
- Frameworks: Spring Boot, Spring Cloud, Spring Data, Dropwizard
- Database: PostgreSQL, MongoDB, Elasticsearch, Redis
- Messaging: RabbitMQ, HiveMQ broker, Eclipse Mosquitto broker
- Cloud and DevOps: Pivotal Cloud Foundry (PCF), Pivotal Kubernetes Service (PKS), Docker, Kubernetes
- Architectures: Microservices, Event-Driven architecture
- Software Design: Object Oriented Design (OOD), Design patterns, RESTful APIs
- Miscellaneous: Maven, Git, Shell scripting

Professional Experience:

1. Principal Software Engineer
   Dell Technologies - Bengaluru, India
   July 2018 to Present
   - Led a team of 5 engineers in designing and implementing event-driven microservices using Java, Spring Boot, RabbitMQ, and Pivotal Kubernetes Service (PKS), optimizing order lifecycle management from booking to fulfillment. Integrated with 30+ upstream data sources, significantly enhancing data quality at each stage of the order process.
   - Developed and deployed a secure API gateway leveraging Spring Cloud and OAuth authentication, ensuring secure and seamless access to 50+ RESTful services. This architecture supported over 10 internal Dell applications while maintaining 100% security compliance for customer data.
   - Designed and built scalable microservices using Spring Boot, Elasticsearch, and Pivotal Cloud Foundry (PCF) delivering order information to both client-facing

and internal business applications, improving data retrieval efficiency and responsiveness.
- Engineered an in-house Digital Twin solution for DELL IoT devices using MQTT messaging and Dropwizard RESTful APIs, supporting telemetry for millions of edge devices operating at customer locations. This approach eliminated the significant cost of proprietary third-party platforms, resulting in significant cost savings.
- Led a team of 5 engineers to develop event-driven microservices using Java, Spring Boot, HiveMQ MQTT broker, and Pivotal Cloud Foundry (PCF) enabling real-time telemetry and device state management for millions of DELL IoT devices, resulting in a 40% improvement in synchronization and operational efficiency.

2. Technical Lead
   HCL Technologies - Bengaluru, India
   October 2017 to July 2018
   - Spearheaded the development of multiple POCs using MQTT messaging with Java on Spring Boot across various MQTT brokers. This initiative aimed at replacing the existing third-party, HTTP-based IoT platform with a custom in-house solution for Dell EMC, improving scalability and efficiency.
   - Designed and implemented microservices using Spring Boot and Docker for DELL IoT gateways, streamlining the management and monitoring of DELL Edge devices, resulting in enhanced system performance and operational visibility.
   - Developed POCs for an alert notification system leveraging Spring Boot and the Apache OpenWhisk serverless platform, significantly improving real-time event notifications and system responsiveness for critical events.

3. IT Analyst
   Tata Consultancy Services Ltd. - Bhubaneswar, India
   July 2011 to September 2019
   - Developed a dynamic scheduling solution for Spring Batch jobs using the Quartz library, enhancing job execution efficiency by 30% and optimizing resource utilization.
   - Engineered RESTful web services with Spring MVC and PostgreSQL for the TCS Analytics platform, improving data retrieval speeds and outperforming proprietary business analytics platforms.
   - Designed and implemented robust batch jobs using Spring Batch, automating data transformation and loading into Apache Hive, Apache HBase, and PostgreSQL. This solution ensured data integrity while reducing processing time by over 60%.
   - Automated the build, test, and deployment pipelines using Jenkins and Shell scripting, leading to a 50% reduction in deployment time and significantly increasing deployment frequency.

Awards and Achievements:

1. Dell Award for Innovation, Dell Technologies
   Recognized in July 2019 for proposing the design of a data hub to analyze application load and health, contributing to improved system monitoring and performance optimization.
2. Dell Champion, Dell Technologies
   Awarded in March 2019 for engineering the Digital Twin system to enhance DELL IoT connectivity for Dell's storage devices and gateways, driving improved device monitoring and data-driven insights.
3. TCS Star of the Month, Tata Consultancy Services Ltd.
   Recognized in November 2013 for developing a utility that efficiently transformed diverse data sources into a predefined JSON format, streamlining data integration for a web application.

Education:

B. Tech. In Computer Science Engineering,
Sikkim Manipal Institute of Technology, Sikkim