**NEHA RATAN**

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**Lead Software Developer**

**Summary**

Results-driven software developer with extensive experience designing and implementing scalable microservices architectures using Java 21, Spring Boot, and Kubernetes. Proven expertise in AWS cloud services (EC2, Lambda, S3), CI/CD automation (Jenkins, Docker, Terraform), and event-driven systems (Kafka, RabbitMQ). Strong background in React.js, TypeScript, and Bootstrap for building high-performance front-end applications. Adept at optimizing SQL/NoSQL databases (PostgreSQL, MongoDB), enhancing system performance, and ensuring security through OAuth2, Spring Security, and Azure Active Directory. Skilled in monitoring tools (ELK, CloudWatch, Prometheus) for proactive issue resolution. Passionate about streamlining development workflows, modernizing legacy systems, and delivering high-quality enterprise solutions.

**PROFESSIONAL EXPERIENCE**

**Lead Software Developer**

**Avalon Bay - Hopewell, VA, USA Oct 2023 - Present**

* Designed and built a microservices-based system with Java 21, Spring Boot, and Kubernetes, making the application more scalable, resilient, and easier to maintain, while streamlining CI/CD deployments.
* Developed dynamic, high-performance user interfaces using React.js, Bootstrap, and TypeScript, improving responsiveness by 20% and enhancing the overall user experience.
* Designed and structured database tables using PostgreSQL for efficient data storage and retrieval.
* Transitioned legacy monolithic applications to a modern microservices architecture on AWS, leveraging EC2, Lambda, and S3, cutting infrastructure costs and accelerating deployment times.
* Improved system monitoring and logging by integrating AWS CloudWatch, ELK Stack, and Prometheus, enabling real-time alerts and proactive troubleshooting.
* Designed and implemented scalable RESTful APIs with Spring Boot, Hibernate, and OAuth2, ensuring high performance, security, and seamless third-party integrations.
* Implemented high-availability solutions and migrated data from various databases to PostgreSQL, ensuring scalability and reliability.
* Wrote Maven Plugin’s for updating Parent POM’s and enhanced few maven plugin’s
* Optimized traffic management and system reliability by configuring AWS Application Load Balancer (ALB) and API Gateway, handling high loads efficiently.
* Implemented Java21 features such as Streams, Lambda expressions, method reference and Optional Class to reduce the code size and simplify the operations.
* Designed and optimized Docker files, built container images, and pushed them to JFrog Artifactory, ensuring seamless deployment.
* Enhanced database performance by designing and optimizing SQL/NoSQL databases (PostgreSQL, MongoDB), reducing query execution time by 30% for high-traffic applications.
* Implemented event-driven architecture using Kafka, speeding up data processing and enabling real-time analytics for better business insights.
* Automated deployments with Jenkins, Docker, and Kubernetes, eliminating manual efforts and ensuring zero-downtime releases.

**Senior Software Developer**

**Spotify || Miami, FL Feb 2022 - Sep 2023**

* Developed AWS applications with the AWS SDK for Java 21 for avoiding issues or troubles of network connectivity or timeout issues.
* Migrated legacy applications to Spring Boot, streamlining development and deployment processes.
* Automated Jenkins pipelines and used Docker for containerization, reducing manual deployment time by 70%.
* Developed modular microservices using Java 21, reducing downtime by 30% and enhancing system reliability.
* Implemented a CI/CD pipeline using GitLab, Jenkins, and JFrog Artifactory, deploying applications on AWS Linux servers for scalable and reliable performance.
* Integrated JIRA with Subversion to retrieve the release reports.
* Managed Kubernetes applications using Helm charts, and created reproducible builds of the Kubernetes applications,
* Managed Kubernetes deployment and service files and managed releases of Helm package
* Worked on critical add-ons such as Tempo, Jira Capture, Jira Agile, Service desk, Portfolio etc.
* Managed and optimized PostgreSQL databases on AWS RDS, enhancing performance and availability.
* Implemented RESTful APIs to support communication between distributed systems, ensuring data integrity.
* Developed front-end components using React JS and Bootstrap, improving user engagement by 25%.
* Optimized database queries for MongoDB and SQL databases, improving response times by 40%.
* Integrated Spring Security and OAuth2 for secure authentication, reducing vulnerabilities in the system.
* Provisioned and maintained AWS infrastructure with Terraform, regularly updating scripts as needed.
* Implemented Kafka for event-driven architecture, improving real-time processing of large data sets.
* Performed Installation/configuring PostgreSQL. Mainly PostgreSQL VERSIONS 9.6, 10.11 and 11
* Developed REST services using Spring Boot, Spring REST and involved in creating REST controllers, Controller advice etc.
* Set up Docker Swarm using the CLI for orchestration, scheduling, and deployment of services, while managing Swarm behavior and creating virtual networks with Docker Weave to connect containers across multiple hosts.
* Managed and orchestrated Kubernetes clusters to enhance scalability and reduce service downtime.
* Created the Node.js EXPRESS Server combined with Socket.io to build MVC framework from front- end side React JS to back-end MongoDB.
* Combined REST and Apache Kafka message brokers to produce and consume centralized spring Restful web services in JSON format.
* Developed and created new modules, tables on Database side using PostgreSQL and PL/SQL.
* Developed, tested, and deployed J2EE applications on WebSphere Application Server with WSAD tools.
* Implemented REST Microservices using spring boot. Generated Metrics with method level granularity and Persistence using Spring AOP and Spring Actuator.
* Used Jenkins AWS Code Deploy plugin to deploy and Chef for unattended bootstrapping in AWS.
* Enabled SSO with Azure Active Directory, securing user authentication across multiple services.
* Conducted distributed tracing using Zipkin to identify bottlenecks and improve microservice efficiency.
* Worked on CI/CD tool Jenkins to automate the build process from version control tool into testing and production environment.
* Optimized application performance with Java 17 record classes for creating immutable objects.
* Integrated cloud infrastructure on AWS, utilizing EC2, Lambda, and S3 for cost-effective scalability.
* Enhanced monitoring and logging capabilities with CloudWatch and ELK stack.
* Designed and implemented scalable RESTful APIs.

**Senior Software Developer**

**Carrier || Palm Beach, Florida July 2018 - Dec 2021**

* Developed and deployed scalable cloud-based solutions on AWS EC2 and DynamoDB, handling high user traffic.
* Utilized AWS CloudWatch for monitoring the health and performance of applications in production.
* Enhanced application reliability through fault-tolerant designs using Hystrix.
* Worked with setting up and maintaining CI/CD Pipelines, Using Jenkins for creating the CI/CD pipelines for building and release automation.
* Customized Atlassian JIRA and Atlassian Confluence by developing various plugins, event listeners and scripts in Java, JavaScript, Groovy Script, Jelly Script and JSON.
* Perform Backend Testing on PostgreSQL Database by writing SQL Queries.
* Automated deployments using Docker and Kubernetes, reducing deployment time by 30%.
* Used AWS with the AWS SDK for Java for taking the complexity out of coding by providing Java APIs for AWS services including Amazon S3, Amazon ECS, DynamoDB, AWS Lambda, and more.
* Developed Jenkins pipelines to streamline CI/CD processes, integrating with JFrog Artifactory for efficient binary management and XL Deploy for automated releases
* Ensured system interoperability through SOAP and REST APIs, integrating with multiple third-party services.
* Improved backend performance by optimizing SQL queries, reducing response time by 50%.
* Developed Graph QL APIs and integrated with ReactJS for optimized front-end data management.
* Built and maintained scalable Spring Boot microservices with MySQL and MongoDB.
* Installed WebSphere plugins on WebServer to establish connectivity between WebServer and AppServer.
* Setup Docker and Helm Properties for application to make ready for Kubernetes deployment.
* Worked on Setup JIRA Service Desk, Request Types, Service Desk Forms, Queues, SLAs, Reports
* Developed modular AWS infrastructure using Terraform and set up Git repositories for managing Terraform stacks
* Implemented the Graphic User Interface GUI by coding in HTML5, CSS3, Bootstrap, JavaScript, jQuery, and jQuery UI.
* Developed reusable React components and managed application state using Redux and Think middleware.
* Created Complex JIRA venture work processes, field arrangements, screen plans, consent plans and notice plans.
* Designed and implemented data processing workflows using AWS Lambda and Step Functions.
* Performed CI/CD pipeline management with Jenkins, automating build and deployment processes.
* Deployed the Spring Batch application on Pivotal Cloud Foundry (PCF) instance and bind the services like Java and PostgreSQL services
* Integrated RabbitMQ for reliable asynchronous messaging between services.
* Built data pipelines with Apache Kafka for event-driven, real-time data processing.
* Optimized system performance using AWS and Lambda functions for cost-effective scaling.
* Worked with CI/CD tools and created efficient workflows using GitHub Actions for automation.
* Virtualized servers for test and development environments using Docker and automated configurations with Docker containers.

**Software Developer**

**Charles Schwab || Westlake, Texas May 2017 - July 2018**

* Designed and developed microservices-based architecture, improving system scalability and maintainability.
* Built user interfaces using React.js, and Bootstrap, increasing responsiveness by 20%.
* Leveraged Java 8 Streams and Lambda expressions to simplify backend logic and improve efficiency.
* Integrated the Java code (API) in JSP pages and responsible for setting up framework for UI development.
* Developed HTML views with HTML5, CSS3/Sass, bootstrap, Node JS.
* Integrated RabbitMQ for asynchronous messaging, improving system decoupling.
* Deployed applications across multiple WebSphere instances, configured shared libraries, and resolved
* Configured and optimized AWS Application Load Balancer (ALB) for better traffic distribution.
* Created REST Microservices APIs using Spring Boot Application and worked on SQL server.
* Migrated legacy monolithic applications to Spring Boot-based microservices, improving deployment efficiency.
* Enhanced database performance using Redis for caching, improving query response times by 50%.
* Applied test automation framework on CI/CD process using Jenkins.
* Involved in creating a Reusable component and React - Router to turn application into Single Page Application using React JS
* Implemented Jenkins for automated CI/CD pipelines, reducing human error in production deployments.
* Experience with messaging systems like Kafka, Kafka event sourcing, ActiveMQ and RabbitMQ.
* Deployed applications in Docker containers and managed them with Kubernetes for cloud-native architecture.
* Used Spring Boot which is radically faster in building cloud Micro Services and develop spring- based applications with very less configuration.

**Software Developer**

**Mylan || Canonsburg, PA, USA Mar 2015 - Apr 2017**

* Developed Spring MVC applications and Hibernate ORM solutions for enterprise-grade systems.
* Created and optimized ETL pipelines with SSIS and integrated data processing workflows. Created the React JS components.
* Implemented real-time data processing solutions using Apache Storm and Kafka.
* Migrated legacy monolithic applications to AWS-based cloud infrastructure, leveraging Docker containers.
* Developed front-end components using HTML5, CSS3, and jQuery, enhancing user experience.
* Created RESTful APIs for communication between services, reducing latency in data fetching.
* Developed the system using Java, Spring, Spring Boot, Hibernate, React JS, HTML5, CSS3, Bootstrap etc.
* Optimized Oracle database queries and wrote PL/SQL stored procedures, enhancing transaction speed.
* Configured Jenkins pipelines for automated testing and deployment of applications.
* Managed NoSQL databases like Cassandra and MongoDB for high availability and fault tolerance.
* Streamlined version control with GitHub, conducted code reviews to maintain high-quality code.
* Implemented automated performance testing using JMeter, simulating high-traffic conditions.
* Configured RDS instances with Cloud formation templates and terraform, and managed AWS resources like EC2, IAM, VPC, ELB, and Security Groups.