**SOFTWARE ENGINEER**

**NIHAL KUMAR MOTHUKURI**

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**Professional Summary:**

* Highly motivated and results-oriented Java Software Engineer around 6 years of experience in designing, developing, and deploying scalable web applications.
* Experienced in working within agile environments to deliver high-quality software on time.
* Experience transforming legacy web applications from AngularJS to modern versions of Angular, ensuring improved performance, maintainability, and user experience.
* Proficient in Java, Kotlin and frameworks such as Spring Boot, Hibernate, and Struts, with a strong grasp of backend architecture and microservices.
* Led the design and implementation of Java/Spring-based microservices integrated with SQL databases, Apache Kafka, and Apache Spark to build high-performance, scalable data pipelines for real-time and batch processing workloads.
* Designed and implemented event-driven architectures leveraging Kafka, webhooks, and asynchronous APIs for scalable and resilient systems.
* Optimized and maintained PostgreSQL and relational databases, ensuring efficient data storage, retrieval, and performance tuning.
* Collaborated with stakeholders and product owners to refine and deliver upcoming epics, translating business requirements into scalable technical solutions.
* Worked as an individual contributor within cross-functional agile teams, driving end-to-end feature development.
* Contributed to and supported mission-critical platforms with high availability and seamless service continuity.
* Designed and built cloud-based architectures and distributed systems, ensuring scalability and fault tolerance.
* Deployed and optimized Java/Spring applications on Kubernetes clusters, ensuring seamless scaling and efficient resource management, and utilizing AWS and Spark for distributed data processing.
* Hands-on expertise in RESTful APIs, gRPC, SOAP Web Services, and integrating third-party services.
* Strong knowledge of SQL and NoSQL databases (e.g., MySQL, PostgreSQL, MongoDB, Dynamo DB), ensuring efficient data management and query optimization.
* Proficient in DevOps practices, including CI/CD pipelines, containerization tools (Docker, Kubernetes), and version control (Git).
* Adept at working with cloud platforms like AWS, Azure, GCP to deploy and manage applications.
* Experienced in agile methodologies, collaborating closely with cross-functional teams to ensure seamless delivery of high-quality solutions.
* Strong problem-solving skills, attention to detail, and a passion for learning emerging technologies to drive innovation.
* Proficiency in developing and integrating web services using JSON, XML, REST, and SOAP to enable seamless communication between distributed systems.
* Expertise in cloud-native application development, leveraging Docker, Kubernetes, Terraform, and AWS for deployment, scaling, and infrastructure management.
* Implemented business logic using Java 17, Spring Boot, Restful API, and Spring Data JPA.
* Involved in creating and deploying the Micro Services on AWS cloud environment.
* Strong experience using source control systems like Bitbucket/Stash, effectively managing code through pull requests and collaborative development workflows.
* Expert in core Java, J2EE technologies like Struts, Spring IOC, AOP, Spring Transactions, Spring MVC, Spring Batch, Spring Security, Spring Cloud, Spring Boot, Microservices, JMS, Hibernate, JPA, PL/SQL, JDBC, Servlets, JSP.

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**Technical Skills:**

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| **Languages** | Java, Kotlin, Python, PHP, C, C++, C#, HTML, CSS, JavaScript, Bootstrap, Data Structures and Algorithms. |
| **Frameworks & Libraries:** | Spring Boot, Spring MVC, Hibernate, JPA, Spring Security, Apache Maven, JUnit, React, Angular, and Bootstrap, Angular, React |
| **Infrastructure & Orchestration Tools** | AWS, Azure, GCP, Kubernetes, Terraform, Ansible, Apache Kafka, RabbitMQ, Redis, Airflow, Hadoop, Spark |
| **Developer Tools:** | Git, Docker, Bitbucket, Jenkins, Visual Studio, PyCharm, IntelliJ, Eclipse. |
| **Architecture & Systems**: | Distributed Systems, Microservices, REST APIs, Graph ql, SOAP. |
| **Database** | MySQL, MongoDB, Dynamo DB, Cassandra |
| **Operating Systems** | Windows, Linux, MacOS. |

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**Education**

* **California State University, Long Beach – California, USA GPA: 3.7/4**

Master of Science in Computer Science (Jan 2021 – May 2022)

* **Chaitanya Bharathi Insitute of Technology- Hyderabad, India GPA: 8.1/10**

Bachelor of Engineering in Information Technology (Aug 2013 – May 2017)

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# **Experience:**

**Amazon, Seattle, WA July 2022 – Present**

**Role: Software Development Engineer**

* Developed and optimized the import fee calculation system for international shipments, reducing pricing discrepancies and enhancing customer trust.
* Designed and implemented Prime and standard delivery optimizations, improving delivery accuracy and reducing shipping costs.
* Designed, developed, and engineered scalable application software solutions using Spring Boot and JavaScript-based frameworks.
* Built and maintained RESTful APIs and SOAP web services, ensuring seamless integrations across services.
* Delivered high-quality code following industry best practices, including TDD, Pair Programming, and peer code reviews.
* Worked with both relational (MySQL) and NoSQL databases (DynamoDB, MongoDB), optimizing data retrieval and storage.
* Implemented CI/CD pipelines leveraging Docker, Jenkins, GitHub, and Artifactory, streamlining software deployment.
* Automated test cases using Selenium, Cucumber, JUnit, and ensured high test coverage through rigorous validation.
* Ensured code quality by maintaining a high percentage of unit and integration test cases, leveraging SonarQube reports.
* Developed and maintained automated test scripts using Selenium, Cucumber, and JUnit, improving test coverage and reliability.
* Implemented automation test cases into the CI/CD pipeline, optimizing software deployment workflows.
* Developed lightweight, reactive microservices using Java 17+, Kotlin, and frameworks like Spring Boot.
* Developed and maintained applications using Java, JavaScript frameworks (React, Angular), JSP, JSF, HTML, XML, and SQL to enhance system functionality and user experience.
* Built scalable backend services using Spring Boot, integrating with databases and third-party APIs for seamless data processing.
* Developed and deployed Java/Spring-based microservices in a Kubernetes environment on AWS, ensuring seamless scalability and high availability.
* Built real-time data processing pipelines using Apache Kafka and Apache Spark to handle large volumes of streaming data in Java/Spring applications.
* Designed and optimized SQL queries for data retrieval and transformation, improving system performance and supporting data-driven decision-making.
* Developed dynamic web applications using Angular, improving UI responsiveness and performance.
* Built reusable Angular components and optimized data binding for enhanced user experience.
* Used Angular CLI to streamline development, testing, and deployment processes.
* Designed and developed modern, responsive UIs using React and TypeScript, improving usability and maintainability.
* Built reusable, modular React components following best practices for scalability. Leveraged React Hooks for efficient state management.
* Integrated AWS services such as Lambda, S3, DynamoDB, and Redshift with Spring applications, enabling seamless data flow and real-time processing.
* Implemented CI/CD pipelines with Jenkins and AWS Code Pipeline, automating deployments to Kubernetes clusters and improving release cycles.
* Developed and maintained microservices using Java, and Kotlin seamlessly integrated with AWS (Lambda, SQS, SNS, DynamoDB, S3) to enhance system resilience and scalability.
* Implemented gRPC-based inter-service communication, minimizing latency and maximizing throughput across high-traffic distributed systems.
* Designed cloud-native architectures leveraging Amazon EC2, ECS (Fargate), EKS(Kubernetes), Kafka, Lambda, and API Gateway to modernize legacy applications.
* Migrated monolithic applications to microservices, utilizing Amazon EKS & ECS for container orchestration and improving deployment flexibility.
* Managed database migrations from on-prem SQL Server & Oracle to Amazon RDS (PostgreSQL, MySQL), Aurora, DynamoDB, and Redshift, reducing operational overhead and improving performance.
* Designed and deployed auto-scaling strategies on AWS EC2, optimizing resource allocation and reducing system latency by 30%.
* Optimized distributed systems by enhancing data consistency and streamlining API response times, resulting in a 20% performance efficiency gain.

**Environment:** Java 17, Kotlin, Spring Boot, AWS, PostgreSQL, Dynamo DB, Airflow, Kafka, Spark, Hadoop, gRPC, Docker, Angular 11, React, Kubernetes (EKS), Jenkins, AWS CloudFormation, Git, JIRA, Agile

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**Wipro Limited - Hyderabad, India Oct 2017- Oct 2020**

**Role: Project Engineer**

* Architected and developed enterprise-grade applications using Java, Kotlin, Spring Boot, and J2EE, ensuring high scalability and robust performance for critical business processes.
* Designed and implemented microservices architectures on AWS and Azure, reducing system complexity and enabling seamless integration with third-party services.
* Worked on full-stack development, utilizing React and Angular for front-end components while integrating with backend services.
* Developed backend services using Node.js and Java, integrating with Angular and React front-end applications.
* Implemented secure data exchange using FTP/SFTP and optimized JSON/XML-based communication.
* Worked on mainframe databases (DMS II DB), analyzing and processing large-scale data.
* Designed and maintained CI/CD pipelines using Docker, Jenkins, and GitHub Actions for automated builds and deployments.
* Conducted performance testing with JMeter and security assessments using Fortify and FireEyes.
* Collaborated with cross-functional teams in Agile environments, ensuring high-quality deliverables.
* Provided technical support and maintenance for existing healthcare applications, ensuring compliance with industry regulations and standards
* Developed Java/Spring applications containerized in Kubernetes, enabling efficient deployment, scaling, and management of microservices.
* Implemented Kafka-based messaging systems to facilitate real-time data streaming and processing, improving application responsiveness and scalability.
* Designed and developed asynchronous APIs that leverage event-driven architecture, enhancing system performance and reducing latency in data handling.
* Enhanced application performance with React.js using lazy loading, Ahead-of-Time (AOT) compilation, and change detection optimization.
* Automated infrastructure provisioning using Terraform, which reduced deployment times by 40% while maintaining consistent and secure configurations across multi-cloud setups.
* Developed and maintained RESTful APIs that enhanced communication between distributed systems, significantly improving interoperability and data exchange.
* Implemented CI/CD pipelines using Jenkins and related tools, streamlining the software delivery process and reducing release cycle times.
* Designed and implemented real-time data streaming pipelines using Apache Kafka, enabling seamless communication and data transfer between distributed applications.
* Developed and optimized Kafka producers and consumers for handling high-throughput data ingestion and real-time processing with low latency.
* Implemented Redux/Context API to manage complex application states seamlessly.
* Optimized performance using code splitting, memoization, and virtual DOM updates.
* Created and managed webhook integrations for seamless communication between microservices and external platforms, ensuring reliable event notifications and data synchronization.
* Optimized data flow and processing by utilizing Kafka topics and consumer groups, resulting in improved throughput and fault tolerance in distributed systems.
* Collaborated with cross-functional teams to define API specifications and documentation, ensuring clarity and consistency in asynchronous communication protocols.
* Monitored and troubleshot Kafka clusters to maintain high availability and performance, implementing best practices for message retention and partitioning strategies.
* Conducted performance testing and optimization of webhook endpoints, ensuring minimal latency and high reliability in event delivery.
* Conducted rigorous code reviews and unit testing, ensuring adherence to best practices, improving code quality, and minimizing production issues.
* Collaborated in Agile cross-functional teams, effectively translating complex business requirements into scalable technical solutions while meeting tight deadlines.
* Utilized DevOps best practices, including containerization with Docker and infrastructure automation with Terraform, to streamline deployments.
* Collaborated in an Agile Scrum environment to deliver end-to-end solutions within tight deadlines
* Conducted design reviews and follow-ups, collaborating within team to improve system architecture and ensure successful delivery of high-quality features.

**Environment:** Java 11, Spring Boot, J2EE, Azure, AWS, React, Angular 8 , Kubernetes , Apache Kafka, Spark, SQL, Hadoop, Docker, Terraform, Jenkins, Git, JIRA, Agile, Angular 8, RESTful APIs, CI/CD