

# Rakesh Kuruva

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## PROFESSIONAL SUMMARY

Accomplished software engineer with a focus on designing and building scalable microservices with Spring Boot and creating responsive user interfaces with React, and Node.js. Experienced in applying event-driven design principles to create applications across the full software development lifecycle. Proficient in managing cloud infrastructure and automating deployments using AWS CloudFormation and Terraform. Skilled at deploying and managing applications with Kubernetes, running CI/CD pipelines for improved deployment and monitoring. Expert in using networking protocols and cloud services to optimize application performance and security. Demonstrated ability to work in a cross-functional environment and collaborate well with others, showing excellent communication skills with a commitment to delivering high-quality software solutions that satisfy complex business needs.

## EDUCATION

**University Of Missouri – Kansas City, MO**  
Master of Science in Computer Science- **GPA: 3.5**

*Dec 2023*

**Lovely Professional University – Punjab, India**  
Bachelors in Electronics and Communication Engineering

*May 2019*

## CERTIFICATION

- Certified AWS Developer – Associate Developer.
- Java Professional Certification from HackerRank.

## TECHNICAL SKILLS

<b>Programming &amp; API Frameworks</b>	Java, JavaScript, TypeScript, Python, Shell scripting, REST API Development, GraphQL
<b>Software Testing</b>	JUnit, Mockito, TestNG, Selenium, and Postman.
<b>Web Development</b>	HTML, CSS, Bootstrap, React, Angular, jQuery, Node.js
<b>Databases</b>	Oracle, MySQL, MongoDB, PostgreSQL, SQL Server.
<b>Cloud Technologies</b>	AWS (S3, EC2, RDS, DynamoDB, Lambda, API Gateway, CloudWatch, SNS, AWS Cloud Formation), Azure (including AKS and Azure App Service).
<b>System Internals and Automation</b>	Linux/Unix, Jenkins, Maven, Docker, Git, Kubernetes, Terraform.
<b>Message Brokers</b>	Kafka, RabbitMQ.

## EXPERIENCE

**Acentra Health – Rockville, MD**  
*Software Engineer*

*Jun 2023 – May 2024*

- Collaborated with cross-functional teams in the design and implementation of resilient software solutions with a focus on microservices architecture using Spring Boot and React.
- Developed event-driven microservices using Spring Boot to enhance system scalability and reliability.
- Improved the user interface performance by 25%, utilizing advanced features of React, to create responsive web applications.
- Managed the deployment of microservices in Kubernetes and optimized the use of CI/CD pipelines for efficient and reliable production builds.
- Integrated Redis in data caching for effective response time in high-volume applications, reducing retrieval time by up to 40%.
- Designed and maintained RESTful APIs within Node.js ecosystems to facilitate efficient data exchange and storage using MongoDB.
- Utilized AWS CloudFormation for deploying and managing cloud services, facilitating seamless integration with existing systems and improving cloud resource management.
- Led the initiatives in transitioning from monolithic architectures to microservices in Docker containerized services, which brought deployment flexibility and system resilience.
- Conducted rigorous unit testing and code reviews, achieving over 85% coverage, which minimized bugs and increased software reliability.
- Designed and maintained technical documentation system architectures and sequence diagrams that guide project continuity and aid stakeholders' understanding.
- Introduced AI-based monitoring tools to predict system bottlenecks and optimize resource allocation, providing a 15% enhancement in system reliability.

- Designed and developed data management and user experience of a J2EE application using Angular, HTML5, and CSS3, improving the experience by 40%.
- Developed and maintained CI/CD pipelines using GitLab, automating the deployment process and driving operational efficiency, incorporating Terraform for infrastructure management.
- Developed secure API services using OAuth2 to ensure data privacy and integrity during internal and external application exchanges.
- Utilized AWS services like AWS Elastic Beanstalk and Lambda functions for building scalability and ensuring that applications are up all the time, managed with AWS CloudFormation.
- Integrated React and Node.js in the development of secure and interactive user interfaces, significantly improving the user experience.
- Led the integration of Kafka in handling real-time data streams, which increased responsiveness and assured business operations reliability.
- Leveraged Docker and Kubernetes for application containerization, which considerably increased deployment speed and environment consistency across development and production.
- Orchestrated Docker containers using ECS, ALB, and Lambda, enhancing the deployment and scalability of applications within cloud environments.
- Performed comprehensive system testing and debugging, leading efforts that sustained high software quality with minimized post-deployment issues.
- Mentored junior developers for skill development in Java, Spring, and Agile methodologies using project participation under guidance.
- Utilized Eclipse as the primary IDE and JIRA for bug and issue tracking.
- Spearheaded a machine learning initiative that involved the analysis of user behavior to improve application features, and it resulted in improved user engagement by 20%.

## **PROJECTS**

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### **Pecunia Bank Application:**

- Created and developed a user-friendly interface with Angular for managing accounts, and reviewing transaction history, loan applications, and other features.
- Developed user interfaces with React and Angular for seamless user experiences in banking operations.
- Integrated advanced techniques of Java backend development with Java Beans, JPA (Java Persistence API), and Spring Framework to develop secure and scalable backend services.
- Set up Kafka for managing real-time transaction data streams, which in turn improves the responsiveness and reliability of the banking operations in alignment with event-driven architecture principles.
- Utilized AWS services such as Amazon RDS in the handling of strong databases, and AWS Elastic Beanstalk in deploying applications elastically to ensure system availability and good performance.
- Designed and deployed microservices architecture for various banking modules to improve modularity and easy maintenance.

### **CIF Integration Tool:**

- Developed a scalable web tool using Spring Boot for managing complex data transactions among merged databases, ensuring data consistency and integrity.
- Created a flexible and effective layer of APIs by using RESTful APIs to improve interaction and manipulation of data on various platforms, enabling proper integration and user engagement.
- Improved test automation through integration with GitLab and CI/CD pipelines, facilitating the entire development process and helping reduce defects in software.
- Utilized AWS CloudFormation and Terraform for managing and automating cloud resources, ensuring efficient deployment and operational scalability.
- Wrote detail-oriented documentation with technical specifications, system architectures, and sequence diagrams in a manner that makes the tool lucid for maintenance.
- Implemented RabbitMQ for message queuing to efficiently handle data synchronization with modern messaging and event streaming requirements.