

# TARUN AKASAPU

Java Full Stack Developer

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## Summary

Experienced Backend Engineer with over 3 years specializing in designing and developing scalable enterprise applications using Java, Spring Boot, and Spring MVC. Proficient in building RESTful APIs and microservices architectures, with expertise in object-oriented programming, ORM technologies like Hibernate and JPA, and real-time data synchronization using Kafka or SQS/SNS. Strong experience with SQL/NoSQL databases(S3/DynamoDB), cloud technologies (AWS, Azure), and optimizing backend performance. Skilled in CI/CD pipelines using Maven, Jenkins, and Git, with a solid background in Agile methodologies for modern development environments.

## Education

University of North Carolina	Charlotte, NC, USA
Masters in Computer Science & Engineering	08/2022 - 05/2024
Anil Neerukonda Institute of Technology & Sciences	India
Bachelors in Computer Science & Engineering	06/2018 - 05/2022

## Experience

Freddie Mac	Usa
Java Full Stack Developer	08/2023 - Present
<ul style="list-style-type: none"><li>Led the transformation of Freddie Mac's legacy loan approval service into a scalable, cloud-native solution, reducing discrepancies in loan approvals by 15% and enhancing operational efficiency across departments, leading to faster loan processing times and higher</li><li>Refactored and optimized the core loan approval algorithms by leveraging AWS-native services, significantly reducing code complexity and processing time. This transformation led to a 20% improvement in overall system performance, enhancing the scalability and reliability of loan approval workflows, especially during peak load periods.</li><li>Integrated Apache Kafka to handle real-time data streaming for loan approval events, enabling the system to process high volumes of data with minimal latency and improving overall responsiveness during peak periods.</li><li>Enhanced user interface responsiveness and interactivity by implementing advanced React features such as Suspense and Concurrent Mode, which led to a 40% improvement in front-end performance and a more fluid user experience, reducing load times and improving user engagement across the application.</li><li>Successfully migrated the existing legacy loan approval service to AWS-native infrastructure, utilizing Amazon EC2 for scalable processing, Amazon S3 for high-throughput data storage, and Amazon ElastiCache (Redis) to optimize data retrieval and reduce database load by 30%.</li><li>Implemented CI/CD pipelines using AWS CodePipeline and Jenkins, enabling automated testing, deployment, and monitoring of loan approval services, which reduced deployment time by 40% and minimized human error during releases, ensuring continuous delivery of high-quality software.</li><li>Rebuilt the backend architecture using Java, Spring Boot, and Amazon EKS (Elastic Kubernetes Service) to manage containerized applications, improving deployment speed by 30% and reducing downtime by ensuring seamless operation during high-traffic periods.</li><li>Automated key loan approval workflows using AWS Lambda and AWS Step Functions, reducing manual intervention, streamlining processes, and cutting down operational costs.</li></ul>	
Intex Technologies	India
Java Developer	06/2020 - 07/2022
<ul style="list-style-type: none"><li>Integrated OAuth 2.0 and Okta for secure user authentication and authorization, enabling token-based access control across microservices, securing sensitive production data for electronic product development.</li><li>Developed Spring Boot microservices with Okta-enabled asynchronous API calls, ensuring secure, scalable communication between production tracking systems, resulting in improved system efficiency.</li><li>Led the migration to AWS cloud infrastructure, utilizing AWS EC2, S3, and Lambda, reducing operational costs by 20% through efficient resource scaling and cloud optimization.</li><li>Implemented AWS EventBridge to trigger AWS Lambda for automated handling of production events, enhancing real-time response capabilities and streamlining production workflows.</li><li>Designed and implemented data sharding using AWS RDS, improving database performance and scaling data across multiple instances, reducing query latency during peak traffic by 30%.</li><li>Leveraged AWS ElastiCache with Redis for caching frequently accessed data, reducing latency and improving performance, resulting in a 30% reduction in query time for production data access.</li><li>Configured AWS CloudWatch for comprehensive logging and monitoring of system performance, proactively identifying bottlenecks and ensuring 99.95% uptime for critical production systems.</li><li>Deployed a sharded logging architecture using AWS CloudWatch Logs, optimizing log storage and retrieval across distributed systems, improving troubleshooting times by 40%.</li></ul>	

## Projects

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### Travel Management System

- Developed a Travel Management System that streamlined travel planning with a user-friendly interface for location search and booking. Integrated real-time location data, boosting customer satisfaction by 30%. Automated backend processes to reduce search times, providing a competitive advantage in the travel industry.
- Built REST APIs using Java and Spring Boot to manage essential backend functionalities such as user authentication, location searches, and booking processes. Implemented the frontend using React and JavaScript for a responsive and user-friendly interface.
- Enhanced the application's speed by 30% through the use of multithreading and Caching, allowing Async API calls and hosting it on AWS EC2, storing S3 and DynamoDB with 50+ searchable locations, optimizing the search and booking process with high throughput.

### Faculty Leave Management System

- Built a scalable web application using Flask and AWS RDS (MySQL) to manage faculty leave records, ensuring high availability and secure data storage and enabled Kerberos for authentication.
- Enabled real-time leave approval tracking by integrating AWS SQS for asynchronous messaging and AWS SNS for instant notifications, improving response times and user engagement.
- Deployed on AWS Elastic Beanstalk, allowing for automated scaling, infrastructure management, and seamless integration with AWS S3 for secure document storage.

## Skills

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Agile · Agile methodologies · Api · Apis · Apache · AWS · AWS Cloud · Aws ec2 · AWS Lambda · Aws rds · Azure · Caching · CI/CD · Cloud Infrastructure · Cloudwatch · Css · Distributed Systems · Docker · Dynamodb · Ec2 · Flask · Git · Github · Html · Java · Jenkins · Jpa · Kafka · Kotlin · Kubernetes · Lambda · Maven · Microservices · Mvc · MySQL · NoSql · OAuth · OAuth 2.0 · Object-Oriented Programming · Okta · Rds · Redis

## Certifications

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AWS Certified Developer Associate