SONALI VEDARAJU

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PROFESSIONAL SUMMARY

Results-driven full-stack developer with nearly 5 years of experience across all phases of the SDLC, skilled in Java, Spring Boot, Microservices, AWS, Kafka, React, Docker, and Kubernetes. Focused on building scalable, cloud-based applications with expertise in CI/CD pipelines, backend optimization, and delivering secure, high-performance systems that elevate user experience

EDUCATION

M.S Computer Science - The University of Texas at Arlington   *Aug 2022 – May 2024*
  Relevant Coursework: Web Development, Distributed Systems, Cloud Computing, Software Design Patterns

B.E in Information Science - Visvesvaraya Technological University   *Aug 2014 – June 2018*

PROFICIENCY

Languages: Java, Python, TypeScript, HTML, CSS
Frameworks: Spring Boot, Spring Framework, Hibernate, React, Node.js
Databases: MySQL, MongoDB, Redis, Cassandra, PostgreSQL
Cloud & DevOps: AWS (S3, EC2, Lambda, SNS, SQS), Azure, Docker, Kubernetes
Architecture: Microservices, RESTful APIs, Event-Driven Architecture
Testing: JUnit, Jest, React Testing Library
CI/CD & IaC: Git, GitLab, Maven, Ansible, Jenkins, CloudFormation, Helm
Project Management: Jira, Agile (Scrum, Kanban)

WORK EXPERIENCE

Software Developer | Paycom, Texas, USA   *June 2024 - Present*

- Centralized config management with custom React hook, boosting efficiency and maintainability.
- Developed a script to track and analyze UI component usage in SPAs, delivering actionable insights to a central service for improved optimization and performance monitoring.
- Identified Kubernetes deployment issues for the UI library by resolving misconfigured environment variables and image pull errors from JFrog Artifactory, ensuring seamless deployments and reducing downtime during UI updates.
- Integrated Elasticsearch for dynamic employee name search in the Advanced Filters component, enabling real-time results narrowing based on user input pauses.
- Developed a GitLab CI/CD pipeline to automate builds, testing, and deployments, including dependency checks and Jira updates for better release tracking. Simplified workflows with multi-stage processes and custom scripts.
- Developed critical and asynchronous test cases using Jest and React Testing Library for 20+ React components, ensuring robust functionality and smooth user interactions and preventing regressions in complex scenarios.
- Conducted root cause analysis during code reviews to identify underlying performance issues and proactively suggest improvements, resulting in more maintainable and scalable solutions.

Graduate Teaching Assistant | University of Texas at Arlington, USA   *Aug 2023 - May 2024*

- Developed and deployed a Python-based student score analysis dashboard on Azure, implementing **optimized SQL queries** to analyze trends and provide real-time insights to professors
- Conducted review sessions to help students apply critical thinking and analytical skills in low-level design, ensuring a deeper understanding of software design principles.

Software Engineer | Integra Micro Systems, Bangalore, India   *Dec 2020 – July 2022*

- Utilised Videoflo's API to generate and manage authentication tokens via appId and secretKey, ensuring secure access to video sessions. Configured webhooks to handle events like participant connections and disconnections, allowing the system to dynamically validate and monitor user sessions in real-time
- Leveraged WebRTC to establish secure, real-time video and audio communication channels, ensuring low-latency, high-quality interactions for video KYC, remote support, and video banking applications
- Implemented socket-based messaging and notification systems to ensure real-time synchronisation across participants in video sessions.

Software Development Engineer | TravTech Inc, Bangalore, India   *Dec 2018 - Nov 2020*

- Developed and maintained scalable microservices for Booking, Inventory, and Notification in a cruise booking application using Java Spring Boot, implementing best practices for API design, security, and load distribution, and integrating with Spring Cloud, resulting in a 30% improvement in system performance during high traffic periods.
- Enabled dynamic configuration update for microservices using Spring Cloud Bus, with real-time update propagation via Kafka, ensuring consistent and up-to-date configurations across all services, which improved system reliability and reduced manual intervention.
- Optimised search functionality by implementing a Redis cache invalidation strategy with an event-driven approach, ensuring data consistency and faster query response times, reducing API hits by 35% and enhancing application efficiency.
- Leveraged Apache Kafka to stream booking data in real-time, enabling immediate synchronization of availability and user confirmations, resulting in reduced latency, improved data consistency, and optimized system performance.
- Strengthened user authentication and authorization by integrating OAuth2 tokens and JWT with Spring Security, enforcing role-based access control (RBAC) and fine-grained permissions across microservices for secure access and communication.
- Developed a Spring Boot microservice with Spring Cloud to dynamically calculate discounts based on booking time, season, and customer loyalty, leveraging environment variables for flexibility, which improved processing speed by 40%.

CERTIFICATIONS

- Certified Kubernetes Application Developer (CKAD) , Cloud Native Linux Foundation   *Dec 2024*
- Microsoft Certified Azure Fundamentals , Microsoft   *Nov 2023*

PROJECTS

Distributed Document Search Application | *Java , Apache Zookeeper, Protocol Buffers, AWS*

- Built a scalable search system using TF-IDF (Term Frequency-Inverse Document Frequency) for relevance scoring on large datasets, implemented parallelized worker nodes for distributed indexing and search. Developed a cluster coordinator for query aggregation and data distribution, and implemented a responsive web interface, achieving fast, accurate results and optimised performance across nodes.

File Upload Notification System | *S3 Event Trigger, SNS, SQS, Lambda function*

- Developed a system that monitors S3 bucket for new file uploads, triggers Lambda function to process the uploaded files, sends notification using SNS and stores metadata in SQS queue for further processing.