

SONALI VEDARAJU

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PROFESSIONAL SUMMARY

Full-stack Engineer with nearly 6 years of experience in building scalable microservices & high-performance SPAs. Skilled in React/Next.js, Java/Spring Boot, AWS & Kubernetes, with a record of boosting performance, strengthening security & delivering reliable solutions.

PROFICIENCY

Languages & Frameworks: Python, Java, Spring Boot, TypeScript, React, NextJs, HTML/CSS

Databases: MySQL, MongoDB, Redis, PostgreSQL, Cassandra

Cloud, DevOps & IaC: AWS (EC2, S3, Lambda, IAM, Bedrock, Lex), Docker, Kubernetes, Terraform (IaC)

CI/CD and Testing Tools : JUnit, Jest, Git, GitLab, Maven, Jenkins

Architecture & Messaging: Microservices, RESTful APIs, Event-Driven Architecture, Apache Kafka

WORK EXPERIENCE

Software Developer | Paycom, USA

Present - Jun 2024

- Optimized SPA performance with **virtualization, lazy loading, and code splitting**, cutting memory use by **60%** and improving load times by **20%**.
- Enhanced build/runtime with **Webpack (tree-shaking, dynamic imports)** and **Next.js/ESM**, reducing cold-load by **3s** and dev reloads by **25%**.
- Centralized configuration management** using a custom React hook + Context API, improving maintainability and seamless state sharing across components.
- Built CI/CD pipelines** in GitLab for automated builds and Kubernetes deployments, containerizing feature branches for efficient testing and integrating Jira for release tracking.
- Delivered **cross-module features** in a **micro-frontend architecture**, ensuring consistent UX and faster releases through collaboration with product/design/QA.
- Improved code quality with **100% critical-path test coverage (Jest/RTL)**, reducing production bugs by **40%**.
- Strengthened frontend security by applying **OWASP practices** (XSS sanitization, CSRF tokens, secure PII handling), reducing vulnerabilities.
- Delivered in Agile sprints** by balancing features, bug fixes, and code reviews, ensuring timely releases and performance improvements.

Research Assistant | University of Texas at Arlington, USA

May 2024 - Aug 2023

- Automated ETL workflows with Lambda, DynamoDB, Athena — improving reliability and cutting manual work.
- Built QuickSight dashboards with filters & role-based access — enabling faster academic decisions.

Software Development Engineer | TravTech Inc, Bangalore, India

Jul 2022 - Aug 2018

- Launched booking & payment platforms** with microservices + GraphQL/REST APIs, accelerating feature delivery and scalability.
- Boosted throughput 40%+** using Redis caching, connection pooling, and multithreading, significantly reducing DB load.
- Optimized queries & indexing**, improving response times on high-traffic booking APIs.
- Hardened APIs** with OAuth2, JWT & Spring Security RBAC, ensuring secure and compliant transactions.
- Reduced MTTR** with observability stack (Prometheus, Grafana, ELK), enabling faster root-cause analysis.
- Migrated monolith to microservices**, lowering deployment risk and enabling independent scaling of services.
- Designed resilient APIs with circuit breakers & retries to ensure reliable service under heavy load.
- Built asynchronous workflows with Kafka/SQS, scaling concurrent request handling and **improving throughput 30%**.
- Introduced database sharding & replication**, improving scalability and ensuring high availability during peak loads.
- Led design/code reviews & mentored peers, raising code quality and knowledge sharing across the team.

EDUCATION

Master of Science in Computer Science - University of Texas at Arlington

May 2024 - Aug 2022

Bachelor of Engineering in Information Science - Visvesvaraya Technological University

Jun 2018 - Aug 2014

CERTIFICATIONS

- AWS Certified Solutions Architect, AWS Mar 2025
- Certified Kubernetes Application Developer (CKAD) , Cloud Native Linux Foundation Dec 2024
- Generative AI Fundamentals - Databricks Oct 2025

PROJECTS

AWS CDK Image Analysis Pipeline | Java, AWS CDK, Lambda, S3, DynamoDB, Rekognition

- Built a serverless image analysis pipeline using AWS CDK, with S3-triggered Lambdas analyzing images via Amazon Rekognition. Stored extracted metadata in DynamoDB, enabling scalable, event-driven processing with IaC best practices.

Chatbot using OpenAI API | Node.js, OpenAI API

- Built an AI-powered chatbot using Node.js and the OpenAI API to enable real-time conversational responses. Designed for easy application integration, providing a scalable and reusable intelligent assistant.