

SONALI VEDARAJU

sonalivedaraj@gmail.com | (682)-374-6951| [LinkedIn](#)| [Github](#)| Pennsylvania

PROFESSIONAL SUMMARY

Full-stack Software Engineer with nearly 5 years of experience building scalable microservices and high-performance SPAs. Skilled in Java/Spring Boot, React/Next.js, AWS, and Kubernetes, with a strong record of optimizing system performance, strengthening security, and delivering reliable, production-grade solutions.

PROFICIENCY

Languages & Frameworks: Java, Python, TypeScript, Spring Boot, Hibernate, React, Node.js, 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

June 2024 - Present

- 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

Aug 2023 - May 2024

- Built a real-time analytics solution** using AWS Lambda, DynamoDB, and Athena to process and query large-scale student course feedback data, automating ETL workflows to improve reliability and reduce manual overhead.
- Developed interactive dashboards in **AWS QuickSight** with dynamic filters and role-based access control, enhancing data accessibility and enabling informed academic decision-making.

Software Development Engineer | TravTech Inc, Bangalore, India

Dec 2018 - July 2022

- Designed and implemented new **microservices** during monolith migration, defining APIs and contracts for modular scaling and faster releases.
- Improved performance with **Redis caching**, connection pooling, and **multithreading**, cutting database load by **40%+** and boosting throughput.
- Built fault-tolerant infrastructure using **Kafka** streaming and **Resilience4j** circuit breakers, ensuring 99.99% uptime even during third-party payment API outages.
- Secured distributed services with **OAuth2, JWT**, and **Spring Security** for fine-grained RBAC, ensuring protection of sensitive booking data across internal and external APIs.
- Collaborated with product and QA teams to design and deliver booking and payment features, ensuring seamless user experience and accelerating release cycles.
- Enhanced observability with **Prometheus, Grafana**, and **ELK**, enabling faster detection of booking API failures and reducing **MTTR** by 30%.
- Built resilient payment integrations with **TDD (JUnit)**, lowering production errors by 20%.
- Led documentation and knowledge-sharing initiatives via **Confluence** and code reviews, accelerating onboarding by 40% and fostering consistent engineering practices.

EDUCATION

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

Aug 2022 - May 2024

Bachelor of Engineering in Information Science - Visvesvaraya Technological University

Aug 2014 - June 2018

CERTIFICATIONS

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

PROJECTS

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

- Built a scalable search system with Java, ZooKeeper, and Protocol Buffers, enabling low-latency, fault-tolerant query processing across large datasets.

AI-Powered Course Advisory Chatbot | Amazon Lex, Bedrock, S3, RAG, AWS

- Developed an AI-powered chatbot with a custom RAG pipeline on S3, improving student self-service and reducing advisor workload.