Vaishnavi Dathrak
Software Engineer

Denver, Colorado • vaishnavi.d@themailpad.com • 720-978-4390 • [LinkedIn](#) • [Portfolio](#)

Summary

- Software Engineer with around 4 years of experience driving projects through the entire SDLC. Skilled in design, development, implementation, and deployment, ensuring seamless integration across front-end and back-end for successful project completion.
- Skilled in strong foundation object-oriented programming to design, develop, and deploy robust and scalable backend applications including Spring MVC, Spring REST, and Spring Boot, for building efficient and maintainable RESTful APIs.
- Expertise in a diverse technology stack, including React.js, Angular.js, Node.js, and PostgreSQL, along with strong proficiency in agile methodologies (Scrum, Kanban) and project management tools like Jira.
- Proficient in CI/CD pipelines using tools like Jenkins and AWS Code Pipeline and a strong understanding of API development and integration to high-quality software solutions that meet business objectives.

Education

Master of Science in Computer Science
University of Colorado, Denver, CO

Bachelor of Technology in Computer Science & Engineering
Guru Nanak Institute of Technology - Hyderabad, India

Skills

Programming Languages: C, C++, Java, JavaScript, TypeScript, RxJava, SQL, NoSQL
Project Management & Methodologies: Scrum Framework, Agile Methodology
Frontend: HTML5, CSS3, jQuery, Ajax, JSON, XML, React.js, Bootstrap, Redux, RESTful API
Backend: Spring Boot, Spring MVC, Spring Data JPA, Spring Cloud, Hibernate, Node.js
Cloud: AWS (EC2, S3, Lambda, SQS, SNS, API Gateways, EKS, ELK Stack, Cloud formation)
Tools & Technologies: IntelliJ IDEA, Eclipse, Maven, Gradle, JUnit, Mockito, Jasmin, Karma, Jest, Swagger, Mocha, SonarQube
Database: MySQL, PostgreSQL, MongoDB, Oracle, SQL Server
CI/CD and DevOps Tools: Jenkins, Docker, Kubernetes, SOAP UI, Git, GitHub, GitLab, RabbitMQ, Kafka, Terraform

Professional Experience

Northern Trust, CO   *Jul 2024 – Present*
Software Engineer

- Led the front-end team by providing technical direction and mentorship in ReactJS and Redux, fostering professional growth through regular Scrum meetings, code reviews, and constructive feedback sessions.
- Designed and developed APIs leveraging microservice architecture, utilizing Spring Boot for efficient development and JMS for asynchronous communication with Kafka as the message broker.
- Utilized Spring Cloud Stream and Spring Cloud Task for asynchronous messaging and task execution, enabling loosely coupled microservices communication.
- Employed test-driven development (TDD) to design and implement automated and comprehensive unit and integration testing with Testcontainers, JUnit 5, Mockito, and WebTestClient, achieving 92% code coverage for robust RESTful APIs.
- Applied a GraphQL API, achieving a 20% reduction in API calls compared to a traditional RESTful API by enabling clients to request only the specific data they require, optimizing data fetching, and improving overall application performance.
- Accelerated ECS integration with Elastic Load Balancing, CloudWatch, and CloudTrail to create a highly scalable and resilient web application architecture, achieving a 99.99% uptime and reducing operational costs by 20%.
- Improved and managed the CI/CD pipeline using Jenkins and Kubernetes, implementing automated testing and deployment within an agile development framework for seamless backend changes integration and delivery.

SS&C Technologies Inc, India   *Sep 2021 - Jan 2023*
Senior Software Engineer

- Leveraged Robotic Process Automation (RPA) tools, including UiPath and SS&C Blue Prism, alongside Docker, to automate repetitive tasks, enhancing operational efficiency and accuracy while reducing costs. Blue Prism's scalability and seamless integration capabilities further improved workflow and ensured regulatory compliance across the organization.
- Established automated testing for Spring Boot applications using JUnit and Mockito, achieving 90% code coverage and reducing production bugs by 40%, ensuring higher application reliability and quality.
- Applied UML modeling to create and document automation workflows, promoting clear communication and uniformity in RPA solutions, which resulted in smoother process automation and minimized manual mistakes.
- Proficient in SQL for advanced data processing and analysis, specifically in detecting and preventing fraudulent activities through sophisticated queries and alerts. Conceived and implemented a frontend interface using React, integrating with backend services through REST APIs, to create a cohesive user experience and robust functionality.
- Conducted vulnerability assessments and applied security patches, leveraging O365 security tools to monitor and mitigate potential threats, enhancing overall system security. Acted as a liaison between development teams and clients, translating client needs into development tasks, and ensuring clear communication and alignment through the Business Optix tool. Managed client interactions to gather comprehensive requirements, present project updates, and set expectations, ensuring project deliverables meet client needs.
- Worked closely with QA teams to establish test cases and verify application functionality across varied user environments. Performed manual and automated tests to identify and log bugs, and created scripts to validate APIs, supporting secure and precise data handling in PostgreSQL-driven applications.
- Utilized Microsoft System Center Configuration Manager (SCCM) to optimize software deployment and update processes across enterprise settings. Automated application rollouts, ensured prompt update installations, and tracked deployment progress with comprehensive reporting. Enhanced IT infrastructure management by leveraging SCCM to adhere to organizational IT standards and security protocols, ensuring efficient and secure operations.

TopHat Software Technologies, India   *Jan 2020 – Aug 2021*
Software Engineer

- Maintained a seat booking dashboard using HTML5, CSS3, JavaScript ES6, jQuery, and Bootstrap, ensuring a responsive and user-friendly interface.
- Employed intricate React components leveraging advanced ES6+ features such as arrow functions, destructuring, and spread operators, leading to a 45% improvement in code readability and modification speed.
- Enhanced microservice communication efficiency by 30% by developing well-structured RESTful APIs using Spring MVC and Spring WebFlux, enabling faster data exchange and reduced latency.
- Implemented Spring JPA to streamline database interactions, reducing query execution time by 30% and improving data retrieval efficiency for business-critical applications.
- Developed CloudFormation templates to provision and manage IaaS services including EC2, RDS, S3, ELB, SES, CloudWatch, IAM Roles, SNS, Lambda, DynamoDB, and Security Groups, enabling automated and scalable cloud infrastructure deployment.
- Optimized CI/CD pipelines by configuring Jenkins to automatically trigger builds and deployments upon successful code pushes to the Git repository, reducing time to market by 15% and accelerating development cycles.
- Collaborated with cross-functional teams in Agile and Scrum environments to meet project milestones and deliver robust solutions, reducing software bugs and application downtime by 40%.