SAI NAGESWARA RAO VAGICHARLA
SOFTWARE DEVELOPER

Location: Redmond, WA |**Phone**: (845)-533-3179 |**Email**: saivagicharlan@gmail.com

Professional Summary

Around 3 years of experience, extensive expertise in Software Development Life Cycle (SDLC) Metrics is demonstrated, covering all stages from requirements gathering to production deployment. Proficiency spans across a diverse array of programming languages, including Java, Python, Go, Typescript, SQL, C. Additionally, a strong command of web technologies such as HTML, CSS, JavaScript, Tailwind, Bootstrap, AJAX, JSON, and jQuery is exhibited, alongside familiarity with frameworks and libraries like Spring, Spring boot, Flask, Django, Angular, Node JS, NumPy, and Pandas. Adeptness at implementing various software development methodologies such as SDLC, Agile, and Waterfall ensures the smooth execution of projects. Furthermore, hands-on experience with databases like MySQL, DynamoDB, and demonstrates robust data management skills. Proficiency in cloud technologies, particularly AWS (EC2, S3, Lambda, AWS Cognito, API Gateway, DynamoDB, Elastic Search, EKS), enables the development of scalable and secure cloud-based applications.

Technical Skills

PROGRAMMING LANGUAGES:	Java, Python, Go, Typescript, C, SQL.
WEB TECHNOLOGIES:	HTML, CSS, JavaScript, Tailwind, Bootstrap, AJAX, JSON, jQuery
FRAMEWORKS & LIBRARIES:	Spring 6, Spring boot 3, Django, Flask, Angular, Express JS, Node JS, Redux, NumPy, Pandas
METHODOLOGIES:	SDLC, Agile, Waterfall.
DATABASES:	MySQL, MongoDB, Firebase
TESTING:	Junit5, Mockito, Unit Testing, TDD.
CLOUD TECHNOLOGIES:	AWS (EC2, S3, Lambda, AWS Cognito, API Gateway, DynamoDB, Elastic Search, EKS)
DEVELOPMENT & OBSERVABILITY TOOLS:	Git, Prometheus, Grafana Loki, Grafana Tempo, Docker, Kubernetes, Jenkins, Figma.

Professional Experience

Software Developer Engineer **Jan 2023 – April 2024**

Amazon Development Center, Inc, WA

- Employed AWS-CDK to create highly optimized and future-proofed code, allowing for seamless deployment of infrastructure over multiple regions across the pipeline.
- Engineered robust and efficient RESTful APIs using Spring boot, resulting in a substantial increase in API response speed and a significant reduction in error rates. This ensured seamless integration with client applications and bolstered overall system performance.
- Pioneered the integration of XRAY, a renowned AWS service with an impressive 80% effectiveness in tracking bottlenecks, latency, API requests, and errors, into Coral services throughout the application.
- Spearheaded the implementation of responsive design principles utilizing HTML, CSS, and JavaScript, leading to a notable 30% enhancement in mobile responsiveness and a 25% increase in user engagement across various devices.
- Implemented advanced state management techniques utilizing tools like Redux, resulting in a noteworthy 25% enhancement in application performance and a 15% reduction in state-related bugs.
- Developed scalable and efficient backend services using Java, Go, Python, leveraging its robust features and libraries to ensure high performance and reliability of applications.
- Engineered multi-threaded to improve throughput and reduce processing time, resulting over 20% performance boost.
- Utilized AWS SDK for Java to seamlessly integrate Java applications with various AWS services, enabling streamlined interactions with services such as S3, DynamoDB.
- Implemented a standard log notification system in Java across all the service, significantly reducing customer tickets by 15% and saving the team 2 engineering months in troubleshooting and support efforts.
- Improved operational efficiency by 20% by applying security patches to infrastructure build agents, ensuring vulnerability-free systems and earning recognition for resolving a customer's storage issue.
- Implemented event-driven architecture using AWS Event Bridge and AWS Lambda, enabling real-time processing of events and triggering of actions based on predefined rules, enhancing system responsiveness and agility.
- Created Custom Lambda Authorizer at Gateway level to authenticate users for each API request and used ECS Fargate Clusters which authorize them based on the custom predefined policies.
- Integrated AWS Cloud Watch to monitor system metrics, log files, and custom application metrics, enabling proactive monitoring and alerting to ensure system reliability and performance.
- Utilized Git for version control to track changes in codebase, collaborate with team members, and manage project history.

Software Developer **May 2022 - Dec 2022**

Cloud Infra IT Solutions, Inc, TX

- Created a Mapping Tool Web Application which allows Site Managers to build KPI's and Data Mapping.
- Designed SPA which restrict users to access the application by taking user level authority from AD groups.
- Secured sensitive configurations using Spring Cloud Config's encryption and decryption capabilities.
- Implemented REST calls that consume the REST API'S using Angular HTTP Module and secured API calls.
- Implemented transaction management using Spring AOP and used Spring Aspects for implementing logging functionalities.

- Delivered 50+ feature requests and gained hands-on experience with the principles of designing and building production-quality REST APIs.
- Created mechanisms and drove adoption around documentation and code quality that helped reduce production defects by 30%.
- Enabled dynamic configuration updates with Spring Cloud Config Client, eliminating need for service restarts.
- Optimized Spring Boot apps for Kubernetes, using Docker and Helm for deployment and orchestration, ensuring smooth CI/CD integration and scalable setups.
- Utilized Java concurrency utilities like Executors, Futures, and Concurrent Hash Map, enhancing code readability and maintainability while optimizing performance.
- Leveraged GraalVM capabilities to enhance application performance by compiling Java bytecode to native images, significantly reducing startup time and memory footprint.

Software Developer **Jul 2021 - May 2022**
Zioqu, Inc, NY

- Implemented micro services architecture using Spring Boot, enabling modular and scalable development, and facilitating independent deployment and scaling of services.
- Integrated Spring Boot applications with various databases including relational databases like MySQL.
- Created complex CSS patterns in the application for the reactiveness in the user interface.
- Demonstrated proficiency in handling concurrency issues using Java's built-in features such as threads, synchronization, and concurrent data structures
- Customized and integrated CSS frameworks such as Bootstrap and Tailwind CSS to accelerate development cycles by 20% and ensure consistency in design patterns.
- Developed and managed a task management dashboard for One Community's web development team using Angular, Node.js, and MySQL, resulting in a 25% increase in task completion rate and a 15% reduction in time spent on task management.
- Improved dashboard loading speed by 60% through the implementation of lazy loading techniques using Angular
- Enhanced application performance by increasing bookings by 16% and customer retention by 20% through the integration of a location-based recommendation system and a story component.
- Introduced a blog feature with comment threads in the book-reader app, leading to a 30% increase in customer engagement.
- Mapped complex entity relationships using ORM, accurately reflecting the business model and ensuring data integrity.
- Using bash scripts to deploy the application instead of manual deployment each time
- Implemented CSRF protection in web applications using Spring Security, effectively mitigating CSRF attacks and enhancing application security.

Education

Masters in Data Science **Aug 2019 – May 2021**
University at Albany - SUNY

B. Tech in Electronics and Communication Engineering **Jun 2015 - Apr 2019**
JNTU - Kakinada

PROJECTS

Recovery Bridge AWS | AWS Cognito, Lambda, API Gateway, DynamoDB, React, Sage maker, Machine Learning, Elastic search

- Developed a web app utilizing AWS Cognito, Lambda, API Gateway, DynamoDB, React, SageMaker, and Machine Learning.
- Achieved 85% accuracy in predicting drug overdose with a Random Forest algorithm for targeted patient interventions.
- Implemented microservices with Rest APIs, Lambda, and DynamoDB, reducing report retrieval time by 50% for medical records management

Web-App deployment on Kubernetes | Docker, Kubernetes, MongoDB, Minikube, Flask

- Established CI/CD pipeline using Docker, Kubernetes, Minikube, and AWS EKS.
- Reduced deployment errors by 30% and accelerated feature rollouts by 50% through Docker deployment.
- Ensured 99.9% uptime with Kubernetes features for replication, monitoring, updates, and alerts.