

Jaya Sai Krishna Muppalla

Software Engineer

Personal Info

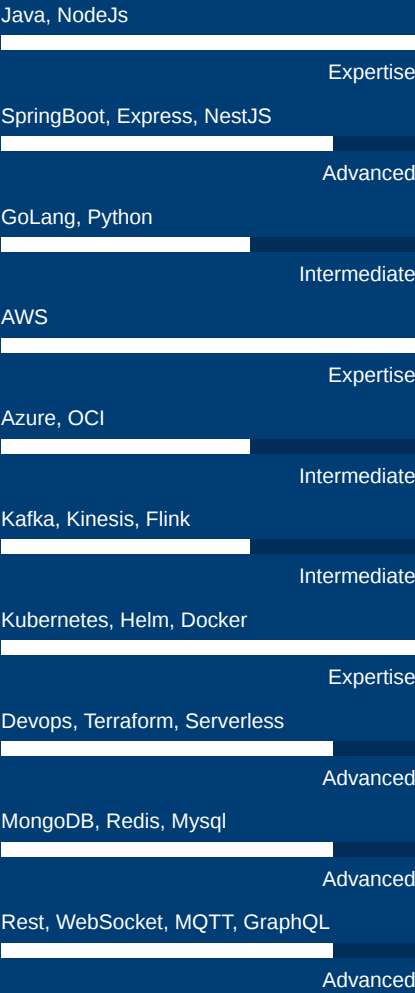
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GitHub
https://github.com/jayasai470

Skills



Summary

Experience in designing, developing, deploying and maintaining highly available, scalable rest api's which are battle tested and performance optimized using java, nodejs and aws

Experience

March 2022 - present

Engineer 3, Software Process engineering

- Employer:***Samsung Electronics America
- Developed a GPT-based movie recommendation system to enhance user experience through personalized suggestions.
 - Conducted research and development on custom Retrieval-Augmented Generation (RAG) techniques aimed at delivering tailored movie recommendations.
 - Utilized the LangChain framework in conjunction with Azure OpenAI and OpenAI's language model providers to implement sophisticated AI-driven features.
 - Integrated various vector database stores, including Azure AI Search and Redis vector module, to optimize data retrieval and storage processes.
 - Transitioned the existing logging and observability infrastructure to an OpenTelemetry-based approach, enabling unified collection and analysis of logs, metrics, and traces.
 - Developed a low-latency game streaming platform ensuring high-performance delivery.
 - Engineered automation for virtual game machine provisioning using KubeVirt (Kubernetes + Virtual Machines) for both AWS and OCI metal machines.
 - Implemented game execution on virtual machines with both Nvidia and AMD GPUs using vGPU/SR-IOV on Windows/Linux systems.
 - Innovated an economical method to make game machines accessible by designing a custom Kubernetes host port operator.
 - Established and managed a Rook + Ceph storage cluster to facilitate Read-Only Many (ROX) persistent volume claims, compensating for AWS's lack of native support.
 - Customized the Puppetlabs pvpool controller for Kubernetes volume snapshot making replica creation instant.

July 2019 - Feb 2022

Engineer 2, Software Process engineering

- Employer:***Samsung Electronics America
- Developed NodeJs backend services and successfully deployed them on Kubernetes (EKS) utilizing Helm charts.
 - Developed an indoor positioning system using beacon technology for proximity detection and contributed to contact tracing solutions for wearable devices.
 - Utilized Apache Flink for real-time stream processing and implemented Complex Event Processing (CEP) for advanced event pattern detection.
 - Designed and implemented microservices using a Function-as-a-Service (FAAS) model, adopting an event-driven architecture hosted on AWS, with deployment automation via Serverless framework.
 - Built fully reactive applications leveraging Spring WebFlux, MongoDB, and Kafka for responsive and scalable solutions.
 - Automated the deployment process for single-page React applications using a combination of CDN, Amazon S3, Jenkins, and CircleCI for efficient content delivery.

Aug 2015 - July 2019

Server Engineer

- Employer:***Samsung Electronics America (Contractor)
- Implemented GeoSpatial queries and GeoHashing for Geofence and location-based alert functionalities.
 - Utilized various mapping APIs such as OpenStreetMaps, Leaflet, Google Maps, and HERE Maps for geocoding and data visualization.
 - Gained comprehensive experience in app development, including working with client-side, server-side, CMS (Magnolia), persistence layers, and streaming services (Kafka).
 - Conducted rapid prototyping for proof of concepts with emerging technologies, ensuring their maturity for production-grade deployment on AWS.

Education

Aug 2013 - May 2015

University of Missouri Kansas City (UMKC)

Masters in Computer Science

May 2009 - April 2013

Jawaharlal Nehru Technological University

Bachelor's in Electronics and Communication Engineering