Jairam Venkitachalam

venkitjairam@gmail.com | +1 (551) 295 5045 | Seattle, WA, 98109
linkedin.com/in/jvenkit1 | github.com/jvenkit1

Skills

Languages: Java, Golang, C, C++, Python
Technologies: Docker, Kubernetes, Kafka, Redis, ElasticSearch, DynamoDB
Databases: SQL, NoSQL, Cassandra, MongoDB, PostgreSQL
Paradigms: API Design, Modular Programming, Agile, TDD, BDD

Experience

Adobe
Software Developer 2   Jul 2021 - Present
- Built Commenting functionality, used by all Adobe's web products and scaled to handle 10M+ daily interactions.
- Enhanced Comment extraction capability from PDFs to cover previously unsupported comment subtypes, increasing projected monthly active users by 50k users.
- Achieved seamless transfer of 100M+ customer assets across storage services by developing a data migration tool, ensuring uninterrupted request handling and consistent service availability.
- Contributed to the re-architecture of our notifications system, reducing overall processing times by 600ms.
- Reduced Redis memory usage by 30% without any performance degradations, by implementing efficient expiration policies and optimizing memory allocation settings.
- Led load testing initiatives on microservices, fine-tuning resource and memory configurations for the Kubernetes cluster, enhancing performance, robustness and stability.
- Improved testing efficiency and ensured the reliability of microservices by designing a robust testing framework.
- Setup CI/CD pipelines in Jenkins, integrating all services to boost deployment reliability and service performance
- Onboarded new hires, mentored and managed task delegation ensuring timely delivery of project milestones.

Cisco Systems
Software Developer   Jul 2017 - Jul 2019
- Developed a Configuration Management microservice, offering versioning, diff comparison and config apply features, widely adopted by multiple teams
- Reduced API latency by 35% in an existing service by designing a Kafka-based event-driven architecture.
- Led the adoption of Docker and Kubernetes in the team, achieving an 18% faster service deployment time.
- Spearheaded effort to rewrite microservices from Java to Go after testing scalability of Golang.
- Setup ELK logging framework enabling activity tracing for ~20 microservices in a Kubernetes cluster.
- Implemented an integration tests suite by leading and strategically delegating tasks to team members.

Projects

Fault Tolerant Key-Value Store
- Developed a distributed in-memory data store resilient to failures while providing data consistency.
- Implemented Paxos consensus protocol for achieving consistency in the data store.
- Achieved a mean write time of 9ms for strongly consistent writes across a 5-node system.

Chat Server for Concurrent Communication
- Programmed a communication service using gRPC and Websockets and compared their performance.
- Ensured data security and privacy by encrypting messages using Advanced Encryption Scheme (AES).
- Dockerized the application, hosted it on Google Cloud Platform and executed load testing scenarios.

Education

New York University, Manhattan, New York, USA   Sep 2019 – May 2021
Master of Science (MS) in Computer Science

SASTRA University, Tamil Nadu, India   Jul 2013 – Jul 2017
Bachelor of Technology in Computer Science and Engineering