Cliff Roberts

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Senior Software Engineer specializing in high-performance, distributed systems with expertise in microservices architecture and event-driven design. Proven track record of optimizing system performance, implementing scalable solutions, and leading technical teams in delivering mission-critical applications. Demonstrated adaptability in rapidly learning and implementing new technologies across different cloud platforms and programming languages, from traditional Java/Python to modern Go/Rust, and from AWS to Azure infrastructure. Passionate mentor who guides team members in technical growth and best practices.

Skills

Programming Languages: Java, Python, JavaScript, SQL (MySQL, PostgreSQL, Snowflake), Bash, Go, Rust

Frameworks & Libraries: Spring Framework (2-5), Spring Boot, jQuery, JSP, Presto, dbt

Infrastructure & Cloud: Kubernetes (EKS, AKS), AWS (Redshift, Aurora, S3, EC2), Azure (App Service, Application Insights, Cosmos DB, Key Vault), Docker, Apache, Kafka

Development Tools: Git, Maven, GitHub Actions, Azure DevOps, Terraform, Helm, Prometheus, Grafana, Datadog

Methodologies: Agile (Scrum, Kanban), CI/CD, Microservices Architecture, Event-Driven Design, SRE Practices

Performance Optimization: JVM Tuning, Data Structure Optimization, Parallel Programming, Message-Based Architectures

Experience

UiPath

2020-02 - present

Site Reliability Engineering

Senior Site Reliability Engineer - UiPath

2022-02 - present

- Lead global live site review meetings, including SLO review and postmortem analysis, driving reliability improvements across the platform
- Led a comprehensive monitoring and observability initiative, implementing centralized logging, metrics, and alerting across integrated platforms
- Established standardized SRE practices across both platforms, including incident response procedures and reliability metrics
- Optimized availability monitoring by migrating from expensive Application Insights to dbt-based preaggregation in Snowflake, significantly reducing costs
- Built a new latency monitoring system from the ground up using dbt and Snowflake, providing real-time insights into service performance
- Mentor team members in SRE practices and cloud technologies, fostering a culture of continuous learning and improvement

(Cloud Elements) Site Reliability Engineering

Senior SRE/DevOps Engineer - Cloud Infrastructure Platform

2020-02-03 - 2022-02

- Led the zero-downtime migration of Kafka and Redis from pet servers to Kubernetes (EKS), improving reliability and reducing operational overhead
- Migrated CI/CD pipelines from CircleCI to GitHub Actions, streamlining the development workflow and reducing build times
- Created a comprehensive Spring Boot service template with standardized build and deployment tooling, reducing new service launch time by 70%
- Implemented infrastructure as code using Terraform and AWS CloudFormation, enabling consistent environment provisioning
- Enhanced system observability through implementation of Datadog monitoring and APM solutions
- Established and maintained service level objectives (SLOs) and conducted weekly live site reviews to drive reliability improvements
- Streamlined environment deployment process through automation and standardization, reducing full environment deployment time from three months to one week
- Implemented a continuous release process based on semantic versioning, improving release predictability and reducing deployment risks
- Mentored junior engineers in DevOps practices and infrastructure management, helping them grow into more senior roles
- Incorporated comprehensive testing practices into service template, including PITest mutation testing for Java code quality assurance

Nasdaq

2012-06-04 - 2020-02

RiskXposure

Senior Software Engineer - Real-Time Market Risk Platform

2016 - present

- Architected and implemented a 10x throughput improvement in the risk engine through strategic data partitioning and parallel computation optimization
- Led the migration from proprietary messaging to Kafka, resulting in improved system reliability and reduced maintenance overhead
- Designed and implemented a dynamic resource provisioning system using Kubernetes, with a React/JavaScript frontend for operational control
- Spearheaded the decomposition of a monolithic SOA system into microservices, reducing deployment complexity and improving system resilience
- Enhanced system observability by implementing comprehensive REST-based telemetry and monitoring solutions
- Developed and maintained support for multiple wire protocols including FIX, JSON, Avro, and proprietary binary formats
- Mentored junior engineers in high-performance systems development and microservices architecture, helping them advance in their careers

Business Intelligence

Engineering Manager - AWS-Based BI Platform

2015 - 2016

- Led a team of seven engineers while serving as Scrum Master and primary technical liaison with business stakeholders
- Architected and implemented a cloud-native ETL pipeline using AWS services (Redshift, Aurora, S3, EC2) and Pentaho
- Established a transparent development process that balanced stakeholder needs while ensuring on-time project delivery

OATS (Order Audit Trail System)

Software Engineer - Compliance Reporting System

2012 - 2016

- Achieved 7x performance improvement in legacy ETL system through optimized data structures while maintaining strict data quality SLAs
- Led a clean-room reimplementation of the OATS system, significantly improving system reliability and throughput
- Modernized deployment pipeline from rsync-based tooling to RPM-based package management
- Developed a database-backed web application for configuration management, reducing configuration-related incidents

Education

B.S. Computer Science, Metropolitan State University of Denver, 2012