

# Nithin Kumar KV

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## EXPERIENCE

### Senior Software Engineer

#### Rippling

September 2023 - May 2024, Bangalore, India

- Played a key role in designing and implementing Rippling's multi-region data residency system. This project entailed developing a framework for sharding company data by regional location and optimizing API routing to enhance global performance and scalability.
- Reduced the SLA Misses of critical asynchronous tasks by 80%, by incorporating chunking and staggered execution of tasks. Thus improving the reliability of the service
- Spearheaded service decoupling initiatives, for enhanced Scalability and improved Maintainability

### Software Engineer, EMR

#### Amazon Web Services

May 2022 - May 2023, Bangalore, India

- Successfully addressed memory issues in EMR job engine container, resulting in an average saving of **500 MB memory** by altering the underlying logging infrastructure and using FluentBit instead of FluentD
- Identified and fixed the memory leak in the Fluent Bit CloudWatch plugin when log rotation was enabled.
- Contributed significantly to the development of the interactive server less component of AWS EMR service, enabling cost-effective and low-maintenance infrastructure for running large-scale big data and AI workloads.
- Successfully managed multiple on-call rotations, demonstrating strong responsibility and problem-solving skills by effectively responding to system failures and ensuring minimal downtime for stakeholders

### Senior Software Engineer

#### Practo Technologies

March 2014 - September 2021, Bangalore, India

- Increased the reliability and scalability of a Doctor Calendar Synchronization service by optimizing the underlying scheduling algorithm, leading to a 92% reduction in CDC events.
- **Serverless functions:** Successfully implemented AWS serverless lambda functions to replace an entire microservice, leading to a noteworthy 75% reduction in infrastructure costs for the microservice.
- **PollerService:** Developed a PollerService system to enable real-time synchronization of doctors' schedules between hospital HMS and Practo.com, scaling the service to support close to 4000 doctors' schedules.
- **Re-architecture:** Successfully re-architected the entire cloud platform structure of Qikwell Service, improving overall performance, availability, security, and reliability of the system
- **Feature Lead:** Served as a Feature Lead for numerous large and small features, leading a team of 1-3 developers
- Automated the Kubernetes cluster creation and installation of custom add-ons, and **reduced the cluster switching time from months to hours.**
- Spearheaded the annual RDS, Elastic Cache reservation to save **30% on infrastructure cost.**,
- Led the redesign and optimization of Practo APIs using RESTful principles, achieving a 35% reduction in API latency.

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## OPEN SOURCE PROJECTS

### Profile support for FluentBit AWS output plugins

FluentBit · [github.com/fluent/fluent-bit/pull/7081](https://github.com/fluent/fluent-bit/pull/7081) · January 2023 - March 2023

- In this open-source project, I contributed a new profile configuration support in Fluent Bit, a popular open-source log processor, enabling users to specify an AWS profile name in S3, Cloudwatch, Kinesis, Firehose, ElasticSearch, and OpenSearch configuration. This allows users to configure multiple profiles and use them to push logs to various destinations simultaneously.

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## EDUCATION

### Bachelor of Technology in Computer Science and Engineering

Minor in Data Structures, Algorithms, Databases, Computer Systems, Machine Learning · Govt. College of Engineering Kannur

• Kannur, Kerala, India · 2013

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## SKILLS

Python, Java, Ruby on Rails, Shell Script, Distributed Systems, Jira, GitHub, AWS, Redis, Serverless functions, SQS, Docker, Kubernetes, DynamoDB, MongoDB