Athavan Kanapuli

Senior Software Engineer - Backend

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Profile

Senior Software Engineer with 9+ years of expertise spanning cloud-native technologies and distributed systems. Currently serving as a founding engineer at a pioneering Industrial IoT startup, architecting solutions from infrastructure to application layers. Proven track record of reducing AWS costs by 40% through Kubernetes migration, improving customer conversions by 9%, and enhancing data flow visibility by 75%. Passionate open source contributor, Linux enthusiast, Kafka specialist, and technical writer focused on building scalable, resilient systems.

Experience

Model Context Protocol (Open Source)   *2025*

Creator & Maintainer

- Built a natural language interface (NLI) for Kafka that simplifies interactions using everyday language instead of complex commands.

- Designed and implemented a Model Context Protocol server allowing non-technical users to communicate with Kafka systems.

- Project benefits include: simplifying Kafka interactions, bridging the gap for non-Kafka experts, and leveraging LLM technology for context-aware commands.

- Source code available at: github.com/kanapuli/mcp-kafka

United Manufacturing Hub, Cologne   *Aug 2024 - Present*

Founding Engineer

- Architecting and building software solutions for Industrial IOT to adopt Industry 4.0 standards and helping industries to digitize their operations.

- Responsible for managing the infrastructure, platform tools and backend services that powers the umh.app product.

- Acting as a core contributor to the company's open source project benthos-umh.

Hellofresh SE, Berlin   *Oct 2020 – July 2024*

Senior Software Engineer

- Leading the implementation of a comprehensive initiative across the company to rebrand Kafka topics for enhanced governance, resulting in a notable 75% improvement in data flow visibility.

- Managed the creation of a central schema registry service serving as a governance entity for asynchronous communication schemas.

- Responsible for maintaining Go-based Kafka and RabbitMQ libraries.

- Established consensus within the engineering organisation on high-level technical designs for data streams.

- Re-architected a Go backend service that improved the customer conversions by 9% and reduced the number of incidents.

- Extracted PHP monoliths into Go microservices using Change data capture pattern.

- Acted as Hiring manager to bring top-tier software engineer talent into the business.

- Introduced Apache MirrorMaker2 to the organisation and developed custom tooling around it to rename Kafka topics according to Hellofresh needs.

- Drafted an internal Request for Comments (RFC) proposing the implementation of Personally Identifiable Information (PII) Tagging within data schemas utilized for asynchronous communications.

Exotel Techcom Pvt Ltd, Bangalore   *Feb 2018 – Sep 2020*

Site Reliability & Software Engineer - Platform

- Orchestrated the introduction and architecture of Kubernetes, facilitating the smooth migration of EC2-based cloud workloads to Kubernetes pods, thereby reducing AWS costs by 40%.

- Spearheaded the construction of a robust CI/CD pipeline utilizing Jenkins and Argo, aligning seamlessly with the Kubernetes paradigm which resulted in faster shipping of changes.

- Assumed a pivotal role in maintaining and enhancing cloud security measures. Awarded by the CTO as Security Ninja at Exotel.

- Engineered a metrics pipeline to systematically collect data from cloud workloads, furnishing actionable insights into the overall health of Exotel services.

- Hired and mentored engineering talent.

- Implemented automated telephone server installations through Ansible, significantly slashing the installation timeframe from one week to just a few hours.

- Developed a microservice designed to automatically recover critical service failures in a pre-Kubernetes environment.

Hirecraft Softwares Private Ltd, Bangalore   *Feb 2015 – Feb 2018*

Software Engineer - Backend

- Implemented a side project in Golang that enables the seamless Excel export of millions of business records with a single API click. This feature eventually became a highly sought-after addition to the Hirecraft web application.

- Created a backend web API server with a well-structured n-tier architecture, utilizing .NET Web APIs, RabbitMQ, Redis, Elasticsearch and MySQL.

Universal Telecom Private Limited, Chennai   *Jan 2014 – Dec 2014*

Field Engineer

- Employed in the telecommunications tower sector to implement Vodafone's 3G technology, involving the installation of equipment and the commissioning of devices with assigned IP addresses.

Education

Sri Sairam Engineering College   *Bachelor of Engineering - Electronics & Communication — GPA (7.6) — 2013*

Skills

- Go
- Kotlin
- Python
- K3s
- Kafka
- Kubernetes
- Rabbitmq
- Terraform

Quick Profile

(a) Github

(b) LinkedIn