# Saravanakumar Arunachalam

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## Professional Summary

Backend-focused Software Engineer with 14+ years of experience designing and building highly available, reliable, and resilient distributed systems. Specialized in Golang, Java, and Python for backend platforms, APIs, and large-scale event-driven data pipelines. Proven expertise in designing architectures that ensure system stability, scalability, and observability. Strong hands-on experience with cloud-native technologies (AWS, Azure, Kubernetes), infrastructure automation (Terraform, Helm), and observability stacks (Grafana, Prometheus, Loki). Passionate about solving complex challenges in data-intensive environments while maintaining high performance and operational excellence.

## Skills

**Backend & Distributed Systems:** Golang, Java, Python, Spring Boot, REST, gRPC, Microservices, System Design

**Data & Streaming:** Kafka, Kinesis, Pub/Sub, Flink, Event-Driven Architecture, High-Throughput Pipelines

**Cloud & DevOps:** AWS, Azure, Kubernetes, Docker, Terraform, Helm, Jenkins, CloudFormation

**Databases & Storage:** Postgres, MySQL, Oracle, MongoDB, DynamoDB, ElasticSearch, S3

**Reliability & Observability:** Grafana, Prometheus, Loki, Jaeger, Resilience Engineering, High Availability, Fault Tolerance, BCDR

**Architecture & Practices:** Distributed Systems, CQRS, DDD, Scalability, TDD, CI/CD, Agile (Scrum/Kanban)

## Professional Experience

### Senior Engineer - Platform – Geico

Charlotte, NC | Jun 2024 – Present

* Architected and developed a serverless platform with high availability, stability, and resilience on Kubernetes.
* Designed and implemented BCDR (Business Continuity and Disaster Recovery) strategies, including data replication and failover mechanisms.
* Integrated observability stack (Grafana, Prometheus, Loki) to ensure proactive monitoring and operational reliability.
* Delivered scalable CaaS/FaaS solutions leveraging Knative, KEDA, and Istio.

### Senior Software Engineer – Fidelity Investments (Contract)

Remote | Apr 2024 – Jun 2024

* Developed resilient backend services in Golang to support high-frequency trading and cryptocurrency workflows.
* Designed APIs with focus on reliability, stability, and secure handling of financial transactions.
* Adopted TDD and CI/CD practices to improve code quality and ensure consistent availability.

### Backend Software Engineer – VMware Carbon Black

Remote | May 2022 – Apr 2024

* Engineered a high-throughput data pipeline for the alert management system, designed to process 50k records per second and multi-billion records daily.
* Optimized backend microservices in Golang and Java to ensure low-latency alerting and stable pipeline performance.
* Enhanced reliability and scalability of event-driven pipelines using Kafka.
* Fine-tuned system performance for large-scale security analytics workloads.

### Senior Consultant – Lincoln Financial Group

Remote | Dec 2019 – May 2022

* Migrated legacy monoliths to resilient microservices on AWS with high availability and failover designs.
* Implemented CI/CD pipelines and automated infra provisioning with Terraform to improve reliability.
* Collaborated on API and data model design ensuring system stability and scalability.

### Senior Software Engineer – J.B. Hunt Transport Services

Lowell, Arkansas | Mar 2018 – Dec 2019

* Built resilient backend microservices with Spring Boot, supporting fault tolerance and scalability.
* Developed distributed order processing pipelines to maintain reliability under peak traffic.
* Ensured service availability through automated deployments on AWS and Kubernetes.

### Earlier Roles – Syntel, Photon Infotech, LTI, IndigoTx Software Technologies

Multiple | 2010 – 2018

* Contributed to backend engineering and microservices design focusing on system availability and reliability.
* Worked on distributed APIs, backend services, and cloud migration projects.
* Mentored engineers and enforced practices for resilience, observability, and operational stability.

## Education & Certifications

Bachelor of Engineering – Computer Science, Anna University

AWS Certified Solutions Architect – Associate