

Akhilesh Reddy

Full Stack Engineer | AI/ML Enthusiast | Cloud & Blockchain Developer

📍 Irving, Texas, United States

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PROFESSIONAL SUMMARY

Experienced **Full Stack Engineer** with **10+ years** of expertise in designing and developing **scalable, distributed, and cloud-native applications**. Proficient in **Java, Spring Boot, Spring Security, Spring Batch, Spring Cloud Data Flow** and **Spring Integration** with expertise in **event-driven architectures** using **Kafka and Cloud Pub/Sub and Event Bridge**. Strong background in **microservices, Kubernetes, and DevOps automation (CI/CD, Docker, Jenkins, Terraform)**.

Expert in **front-end frameworks**, including **React.js**, for building dynamic, high-performance user interfaces. Deep experience in **cloud platforms (AWS, GCP, Azure)** and **blockchain-based integrations (Hyperledger Fabric)**. Currently transitioning into **AI/ML development**, upskilling in **Python, TensorFlow, and data engineering** to build intelligent, high-performance applications. Passionate about **building resilient systems, optimizing performance, and automating workflows at scale**.

WORK EXPERIENCE

American Tire Distributors | Lead Full Stack Engineer | Irving, TX | Jan 2022 – Present

Order Management System – Microservices & Distributed Data Streaming

- **Led a team of engineers** to design and implement a scalable **Order Management System (OMS)** for fulfillment, leveraging **microservices, event-driven architecture, and cloud-native solutions**.
- **Developed key order lifecycle services**, including **pre-order, order processing, and fulfillment**, ensuring seamless integration across distributed components.
- **Implemented a streaming distributed solution** to migrate data from **Oracle GoldenGate (Kafka topics) to MongoDB**, enabling real-time data streaming and event-driven decision-making.
- **Designed and deployed Spring Cloud Data Flow (SCDF) pipelines**, utilizing **Domain-Specific Language (DSL)** to process and transform **high-volume transactional data**.
- **Managed and orchestrated SCDF pipelines via the SCDF UI**, enabling streamlined deployment, versioning, and monitoring of data streams.
- **SCDF pipelines orchestrated data transformations**, converting **relational data (Oracle)** into a **NoSQL format (MongoDB)** while ensuring consistency, scalability, and low-latency reads.
- **Deployed SCDF on GCP Kubernetes Engine (GKE)**, using **Jenkins CI/CD** for automated deployment and lifecycle management.
- **Monitored SCDF pipeline performance using Grafana**, setting up real-time dashboards to track data flow, latency, and system health.
- **Optimized the system's event processing** to improve data ingestion efficiency by **40%**, reducing processing time and enabling real-time insights.

Technologies: Java 17, Spring Boot, Spring Cloud, Spring Cloud Data Flow (SCDF), Spring Integration, Kafka, Oracle GoldenGate, MongoDB, GCP (GKE), Jenkins, Docker, Kubernetes, **SCDF UI, Grafana**

Canoo | Senior Full Stack Engineer | Irving, TX | Jan 2021 – Jan 2022

Autonomous Vehicle Software – Remote Command System

- **Developed and deployed** highly scalable **Node.js microservices** using the **Serverless Framework**, running on **AWS Lambda** to handle vehicle remote commands in a low-latency environment.
- **Integrated vehicle control commands** with **Confluent Kafka**, enabling real-time streaming and processing of remote commands from vehicle software operations.
- **Designed and built event-driven Lambda functions** to listen to Kafka topics and update **Amazon DynamoDB**, ensuring consistent and fault-tolerant remote command execution.
- **Implemented AWS API Gateway for secure and scalable communication** between remote clients and Lambda functions, ensuring **low-latency execution** of vehicle commands.
- **Integrated authentication and authorization** using **AWS IAM, API Gateway authentication policies, and OAuth2-based identity providers**, securing API access for remote vehicle operations.
- **Developed a React.js-based UI application** on top of **DynamoDB**, providing real-time visualization and control of vehicle commands.
- **Automated deployment using Jenkins CI/CD pipelines**, ensuring efficient and seamless integration of serverless functions with AWS cloud infrastructure.
- **Optimized event-driven workflows** to enhance **vehicle response times**, reducing command execution latency by **30%** through efficient Kafka stream processing.
- **Ensured system reliability** by implementing **CloudWatch monitoring, DynamoDB TTL policies, and API Gateway rate limiting**, improving fault tolerance and system observability.

Technologies: Node.js, AWS Lambda, Serverless Framework, Confluent Kafka, AWS API Gateway, DynamoDB, React.js, OAuth2, AWS IAM, CloudWatch, Jenkins, CI/CD, Event-Driven Architecture

Geoverse | Full Stack Java Engineer | Mar 2019 – Jan 2021

Telecom Services Trading Application – Microservices, Security, and Kafka Streaming

- **Developed and integrated microservices** with **Home Subscriber Server (HSS), Google Spectrum Access System (SAS), Billing Platform, and Salesforce**, powering a **Hyperledger Fabric-based blockchain trading application** for telecom services.
- **Built a Kafka-based streaming pipeline** to enable **real-time event processing between HSS and Geoverse's central PostgreSQL database**, ensuring **low-latency SIM and spectrum management with high data consistency**.
- **Implemented security integration for microservices using Okta IAM**, securing APIs with **OAuth2-based authentication, role-based access control (RBAC), and JWT token validation** for enhanced telecom data protection.
- **Integrated Hyperledger Fabric Smart Contract data** with internal microservices using **Kafka**, enabling **seamless and distributed data synchronization** across multiple services.
- **Optimized event-driven architecture** to automate telecom operations, reducing **manual SIM and spectrum management efforts by 80%** through **real-time, rule-based automation**.
- **Deployed and monitored microservices on Google Cloud using Docker, Kubernetes, and Jenkins CI/CD pipelines**, ensuring **scalability, fault tolerance, and automated recovery**.
- **Implemented monitoring and observability** using **ELK Stack, Grafana, and Prometheus**, providing **real-time insights into microservices health, Kafka event processing, and API performance**.

Technologies: Java 11, Spring Boot, Spring Cloud, Spring REST, Spring Cloud Data Flow, Spring Integration, Kafka, Okta IAM, OAuth2, JWT, Spring Security, Spring Data JPA, PostgreSQL, Redis, React.js, Google Cloud, Docker, Kubernetes, ELK, Grafana, Prometheus, Jenkins

Reef Technologies | Full Stack Java Engineer | Oct 2018 – Mar 2019

Custom Web Applications – Revenue & Valet Management Systems

- **Developed a Revenue Management System** used in **1000+ locations** across **Real Estate, Parking, and Cloud Kitchens**, integrating **microservices with Dynamics 365 and MuleSoft** to enable **real-time revenue reconciliation**, reducing manual effort and increasing efficiency.
- **Built a Valet Tracking System with Live Dashboards**, providing valet attendants and customers with a **real-time booking system using SMS and QR-based tickets**, increasing revenue and customer engagement.
- **Integrated food delivery platforms (Uber Eats, DoorDash, etc.)** with the revenue management system, automating **real-time revenue tracking** for cloud kitchens.
- **Implemented Reactive Spring Boot-based microservices** to handle **high-throughput revenue transactions** efficiently, ensuring seamless data processing and responsiveness.
- **Designed and optimized Spring Batch jobs** for **large-scale financial transactions**, improving processing speed and system scalability.
- **Utilized MongoDB** for **NoSQL data storage**, providing **fast and flexible data retrieval** for real-time revenue tracking and analytics.
- **Secured microservices with Spring Security and Azure SSO**, enforcing **OAuth2 authentication, role-based access control (RBAC), and API gateway security policies**.
- **Deployed and monitored** microservices on **AWS using Docker, Kubernetes, and Jenkins CI/CD pipelines**, ensuring **scalability, fault tolerance, and automated deployments**.
- **Set up monitoring with ELK, Grafana, and Prometheus**, enabling real-time observability and performance tracking.
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Technologies: Java 8, Spring Boot, Spring Cloud, Spring REST, Reactive Spring Boot, Spring Batch, Apache Camel, Kafka, Spring Data JPA, Spring Security, MongoDB, PostgreSQL, Redis, Angular 9, AWS, Docker, Kubernetes, ELK, Grafana, Prometheus, Azure SSO, Twilio, Jenkins, JUnit, Mockito, JMeter

Icon Parking | Senior Java Developer | Dec 2016 – Oct 2018

Enterprise Parking Management & Automated Revenue Processing

- **Developed an enterprise parking management system** used by **500+ users**, automating daily business operations and improving operational efficiency.
- **Built a Payroll Data Batch Processing Application** using **Spring Batch and Spring Integration**, enabling large-scale **data transformation and ingestion** from **Ceridian and Dayforce SFTP servers**, reducing manual effort for **20+ office users**.
- **Designed and optimized batch applications** to automate **daily and monthly revenue data processing**, reducing manual workload for **10-20 office users daily** and streamlining financial reporting.
- **Implemented a Data Processor using Apache Camel, Spring Batch, and Spring Integration** to automate **Ticketech data ingestion, transformation, and reconciliation**, improving accounting efficiency for **500+ parking locations**.
- **Developed a real-time data synchronization system using Spring Integration**, ensuring **seamless data flow** between **Ticketech, MS-SQL databases, and financial reconciliation systems**.
- **Designed a web-based revenue correction and auditing system**, integrating with **Square Payment Gateway** to enable **secure, automated financial transactions**, used by **500+ parking lot users daily**.
- **Implemented security best practices using Spring Security and OAuth2**, enforcing **authentication, authorization, and role-based access control (RBAC)** to safeguard financial data.
- **Integrated API authentication with Active Directory**, ensuring compliance with financial security regulations and securing sensitive revenue data.

Technologies: Java 8, Spring Boot, Spring REST, **Spring Security, Spring Batch, Spring Integration, Apache Camel, OAuth2**, Spring Data JPA, Angular 7, SQL, MS-SQL, Payment Gateway (Square), File Maker Pro, Active Directory

Siemens | Java Developer | Apr 2015 – Jan 2017

Java-Based Business Rule Engine Development

- **Led the migration of SAP BRF+ rules** into a **custom Java-based rule engine**, improving execution efficiency and maintainability.
- **Developed a Java Rule Engine**, analyzing and converting **complex SAP BRF+ business logic** into **Java-based execution logic**, enabling **faster decision processing**.
- **Built a web-based UI wrapper** around the rule engine and deployed it on **Apache Tomcat**, enhancing usability for business users.

Technologies: Core Java, Collections, Spring Boot, Spring REST, Apache Tomcat, SMTP

Skills

Programming Languages:

- **Java (Expert), Python (Learning), JavaScript (Proficient), SQL (Proficient), HTML, CSS**

Cloud & DevOps:

- **Google Cloud Platform (Certified), Amazon Web Services (Certified), Microsoft Azure (Certified)**
- **Docker, Kubernetes (AWS EKS, GKE), Terraform, Jenkins, Maven, Gradle**
- **Git, Jira, Confluence, SVN, SonarQube**

Frameworks & Libraries:

- **Spring Boot, Spring Cloud, Spring MVC, Spring REST, Spring Security, Spring Batch, Spring Integration, Spring Data JPA, Apache Camel, Apache Kafka, Hibernate, JDBC**
- **Reactive Spring Boot (WebFlux), Spring Cloud Data Flow (SCDF)**
- **Node.js (Serverless Framework), Express.js**
- **React.js, Angular (Working Knowledge)**

Event-Driven & Streaming:

- **Apache Kafka, Confluent Kafka, Google Pub/Sub, AWS SNS/SQS**

Databases & Storage:

- **PostgreSQL, MS-SQL, MySQL, MongoDB, Redis, DynamoDB**

Web Services & APIs:

- **RESTful APIs, GraphQL, SOAP, Microservices**

Security & Identity Management:

- **Spring Security, OAuth2, JWT, SSO, OIDC, SAML, MFA**

- **IAM (Okta, Azure SSO, AWS IAM, Auth0, Keycloak)**

Monitoring & Observability:

- **Grafana, Prometheus, ELK Stack (Elasticsearch, Logstash, Kibana)**

EDUCATION

Bachelor of Engineering, Anna University, India

MAY 2011 - APR 2015

AWARDS, CERTIFICATIONS AND ACCOLADES

2025 | Certified Block Chain Expert | Blockchain Council

2023 | Graph Developer - Associate | Apollo Graph QL

2022 | AWS Cloud Practioner | Amazon Web Services

2022 | Associate Cloud Engineer | Google Cloud Platform

2022 | Azure Fundamentals | Microsoft

2018 | Emerging Leader of the year | Mouritech LLC