Kannan Nishok
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Professional Summary

6+ years of experience building **scalable microservices, cloud-native solutions, and real-time data processing systems.** Proficient in **Java, Spring Boot, Kafka, Azure, AWS**, and front-end frameworks (**Angular, React.js**). Passionate about **building scalable, high-availability systems, optimizing performance, and reducing latency for real-time applications**

Technical Skills

Programming Languages:	Java, SQL, JavaScript, TypeScript, Python, C#
Data and messaging:	Kafka, Hadoop, Presto, Cassandra, SQL server, DynamoDb, Apache Spark, Flink, MapReduce
Frameworks & libraries:	Spring Boot, JDBC, Hibernate, Angular, React.Js, Node.Js, .net, Sequelize, Airflow, Maven, Gradle
Cloud & DevOps:	Jenkins, Docker, Kubernetes, CI-CD, Git, Azure, AWS, Terraform, Packer, Github-actions
Tools, platforms:	Postman, IntelliJ, Splunk, Git, IAM, CloudWatch, ELK stack, API Gateway, LLM, GPT 4
Security:	OAuth 2.0, OIDC, JWT, Microsoft Graph API, Role-Based Access Control (RBAC)

Professional Experience

U.S. Bancorp | Seattle, WA, USA | Software Engineer 2 (Assistant Vice President) **Mar 2023 – Present**

- Developed scalable file ingestion and tracking system on Azure Blob Storage, collaborating with DevOps and cloud architects to implement parallel chunk uploads, reducing latency by 59% and ensuring 99.9% uptime
- Partnered with security team to integrate Microsoft Identity Platform (OIDC, OAuth 2.0, Microsoft Graph API), enhancing API security with role-based access control (RBAC) for Admin, Read, Upload roles and reducing unauthorized access
- Engineered a real-time transaction processing system for 20M+ daily credit card transactions, collaborating with product managers and data analysts to optimize Kafka-based ingestion into webhooks, achieving 99.9% uptime
- Led cross-functional effort to build a scalable Spark data pipeline processing 137M records (1TB) daily from Presto, Cassandra, SQL, enabling Azure Datalake integration and boosting customer engagement by 15% with personalized insights
- Created microservices, cron jobs, and dashboard to track status of data load for 26 system of records in data lake, stored logs in SQL server and leveraged Splunk to create alerts, decreasing job failure rate by 40%
- Designed and implemented an AI-driven (LLM) log processing system using Azure OpenAI GPT API, Azure Functions, and CosmosDB, enabling automated root cause analysis and reducing manual troubleshooting
- Optimized error log processing by batching failures, reducing API costs & added automated alerts via email for critical issues
- Developed in-memory SQL tool to replicate Spark DataFrame structures, enhancing SQL-driven data transformations for integration in near-real-time ETL processes using Spark (Continuous Trigger Mode) & Spring Boot Kafka consumers

Amazon Web Services | Seattle, WA, USA | Software Engineer **Oct 2022 – Mar 2023**

- Coded front-end tool in Angular with modularized, reusable components to integrate backend service in MVC architecture
- Built feature to reduce camera alignment issues by 40% in cameras by superimposing predicted vs actual poses in Go stores
- Designed, implemented low-level architecture for camera calibration & bump detection, cutting AWS compute costs by 30%

Nokia Bell Labs | New Jersey, USA | Software Engineering Co-op **Jan 2022 – May 2022**

- Built new tabular dashboard that would fetch and manipulate data from database to analyze interconnectivity in customer's optical fiber network across globe using Java Spring boot and hibernate for backend and React.JS for frontend
- Developed and implemented 6 new filters using Hibernate while working in an Agile environment to analyze data effectively

FIS | India | Software Engineer **Aug 2020 – Dec 2020**

- Constructed automated invoice processing system for optimized payment systems for media network clients and increased time efficiency by 40% using Python, Pandas, Tabula, Numpy, and PIL library for development
- Automated operation processes for apps with Python, selenium, and PyAutoGui, and achieved time-saving of 40 hours/month

Publicis Groupe | India | Software Engineer **Aug 2018 – July 2020**

- Developed tool to automate employee cab routing process using optimization heuristics and achieved cost savings of 45%
- Created utility REST API to gather distance, latitude-longitude data for nodes with Google geocoding API, Entity framework
- Orchestrated batch scheduling in Airflow using a YAML-based approach on a single node, enhancing system efficiency by automating YAML workflow generation with Python utility to streamline deployment and ensure configuration precision

Projects

Cloud native Web App | Node.js, MySQL, Terraform, AWS, Packer, Github actions | Boston, USA **Sep 2021 – Dec 2021**

- Developed a secure backend CRUD web app with BCrypt encryption, OAuth authentication, and AWS DynamoDB for token management, ensuring robust security and authentication
- Built Infrastructure as Code (IaC) with Terraform & Packer, automating AWS VPC, Subnets, Route tables, API deployments on EC2 with RDS & S3, while integrating load balancing, autoscaling, CloudWatch monitoring for high availability
- Optimized deployment and alerting with CI/CD automation using GitHub Actions, reducing failures by 60%, and enabled real-time notifications & email-based authentication via AWS SNS, Lambda, and SES with a pub-sub architecture

Education

Master of Science in Information Systems, Northeastern University | Boston, MA **Jan 2021 – Aug 2022**

Bachelor of Engineering, Electronics and Communication, VIT University | India **May 2013 – May 2017**