VIVEK BHAT

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SUMMARY

AWS-certified Solutions Architect and Developer with 7+ years of experience working closely with customers to gather requirements and deliver scalable, high-impact software solutions. Skilled in leading agile teams, solving complex technical challenges, and writing clean, maintainable code.

CORE TECHNICAL COMPETENCIES

Programming	Java, Python, JavaScript, Go, TypeScript, Angular, Ansible, NodeJS, SQL, Terraform
Tools & Utilities	AWS, Kafka, Flink, Git, Docker, Kubernetes, Gradle, Elasticsearch, Logstash, Kibana
Operating Systems	Linux, Unix, Windows, WSL, Macintosh
Certifications	MIT Applied Data Science Program, AWS Solutions Architect, AWS Software Developer

PROFESSIONAL EXPERIENCE

HUGHES, Maryland, Sr Software Engineer — Nov 2023 – Present

- Collaborated with customers to capture requirements, architect scalable solutions, and drive end-to-end software delivery, including deployment and ongoing maintenance.
- Led the implementation of software development best practices for a greenfield project, including AWS VPC, IAM policy design, AWS MSK integration, infrastructure provisioning, and observability systems.
- Built real-time data stream processing engines using **Apache Flink** and **Kafka** to detect satellite internet communication issues globally, reducing triage time from an average of **2 days to near real-time**.
- Engineered an in-house **Avro Schema Registry** enabling seamless schema resolution and backward compatibility, streamlining data serialization across distributed systems.
- Led cross-functional efforts to standardize schema and data governance across streaming applications.
- Implemented RBAC and IAM policies to secure multi-tenant Kafka clusters and cloud resources.
- Developed tools with AWS Bedrock and vector embeddings to calculate cosine similarity, which enhanced the accuracy and efficiency of manual labeling from **days to hours**.
- Engineered a service to identify weather-impacted customers, cutting **triage time by 90%**.
- Analyzed network issue trends and business impact and built ML training pipelines in collaboration with data scientists and subject matter experts to classify and predict satellite internet network issues.
- Mentored new engineers to accelerate onboarding and productivity.
- Optimized AWS infrastructure monitoring, reducing costs **by 65%.**

AMAZON, Seattle, WA, Software Development Engineer — June 2022 – Oct 2023

- Led the design, development, and deployment of highly scalable software solutions and microservices.
- Automated **Amazon Same-Day Delivery** catalog refresh, reducing update time **by 12 hours**, improving data freshness, and eliminating manual effort.
- Proactively refactored system logic to remove redundant API checks to an external service, improving efficiency and reducing latency.
- Developed an **AI/ML-powered "Frequently Bought Together"** widget, driving $110K+ in revenue.
- Spearheaded the development of a high-throughput inventory catalog service, slashing ticket numbers **by 20%** and improving data freshness by over **10 hours.**
- Engineered CI/CD infrastructure design, complete with monitoring, **anomaly detection**, and alarms.
- Played a pivotal role in 24/7 on-call rotations, addressing cross-team production challenges.
- Oversaw extensive online feature experiments, leveraging feature flags (A/B tests) and production traffic.
- Built automated ETL pipelines to deliver ML-driven data to Amazon widgets.

MICROSOFT, Redmond, WA, Software Development Engineer **June 2021 – June 2022**

- Spearheaded the global device management microservice, enhancing seamless device interactions.
- Developed and implemented a system to dynamically execute Python scripts and manage dependencies for a vast network of routers.
- Established KPIs and monitoring tools for emerging services overseeing thousands of devices.
- Participated in **24/7 on-call rotations** to troubleshoot production issues across cross-functional teams.
- Conducted deep-dive root cause analyses for production incidents, for long-term stability improvements.
- Reduced new device configuration time **by 50%** through advanced caching optimizations.
- Migrated internal APIs to a new in-house platform, enhancing maintainability, performance, and integration consistency across services.

INTEL, Oregon, Software Development Engineer **January 2018 – June 2021**

- Designed and deployed a scalable Java Spring Boot microservice to efficiently orchestrate Spark job execution within a Hadoop ecosystem.
- Boosted data throughput **three times** by integrating Apache NiFi for high-performance, reliable data transfer across distributed systems.
- Built and deployed the POC for Apache NiFi on premises servers to demonstrate the workload processing.
- Deployed a POC for Apache NiFi on on-prem servers to highlight scalable workload processing.
- Built robust CI/CD pipelines tailored to client requirements using Java, Docker, Gradle, and GitHub Workflows, accelerating deployment cycles.
- Led end-to-end development of a full-stack solution, collaborating with stakeholders to deliver a responsive Angular UI backed by Java APIs.
- Integrated secure user authentication using AWS Cognito, enabling seamless sign-up and sign-in experiences.
- Implemented a centralized logging and monitoring solution using the ELK stack (Elasticsearch, Logstash, Kibana), improving observability and issue resolution.

INTEL, Software Engineering Summer Intern **May 2017 – Aug 2017**

- Engineered Intel Saffron's Java-based REST API for AI services, integrating advanced security protocols and complex classification and recommendation modules.
- Collaborated with stakeholders and customers to refine and enhance REST API functionality based on evolving requirements and feedback.
- Developed an Ansible playbook to automate the deployment of AI services on AWS, reducing setup time by 90% and improving deployment consistency.

EDUCATION

North Carolina State University, Raleigh, NC, USA **Aug 2016 – Dec 2017**
MS in Computer Science

Jamia Millia University, New Delhi, India **June 2012 – July 2016**
Bachelor of Technology in Electronics and Communication Engineering