VIVEK BHAT

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**Summary**

Dynamic and c­­ertified AWS Solutions Architect, Developer and MIT Applied Data Scientist with over 7 years of professional experience in spearheading software development projects in globally recognized organizations.

**Core Technical Competencies**

**Programming** Java, JavaScript, Go, TypeScript, Angular, Python, Ansible, NodeJS, ReactJS, SQL, Terraform

**Tools & Utilities** AWS, Kafka, Flink, Git, Docker, Kubernetes, Elasticsearch, Logstash, Kibana, Gradle

**Operating Systems** Linux, Unix, Windows, WSL, Macintosh

**Professional Experience**

## HUGHES, Maryland, Sr Software Development Engineer Nov 2023 – Present

## Partnered with customers to gather requirements, design scalable solutions, and oversee end-to-end software deployment and maintenance.

## Led the implementation of software development best practices, including AWS VPC architecture, IAM policy design, Kafka integration, deployment automation using Terraform, and observability systems for a greenfield project.

## Built a real-time data stream processing engine using Apache Flink to detect satellite internet communication issues globally, reducing triage time from an average of 2 days to near real-time.

## Built a tool using AWS Bedrock’s Titan Text Embeddings model to detect similarity between network component signatures, enhancing the accuracy and efficiency of manual labeling.

## Developed a satellite network monitoring service to identify weather-impacted customers, cutting triage time by 30%.

## Architected an ML pipeline to classify millions of datapoints and detect network anomalies with high accuracy.

## Collaborated with data scientists and domain experts to design and implement data pipelines for training ML models that classify and predict network issues.

## Performed data analysis to uncover trends and quantify business impact of network issues, leveraging statistical techniques and visualization tools to drive data-informed decision-making.

## Optimized AWS infrastructure monitoring, reducing costs by 65%.

## Engineered CI/CD pipelines to streamline development workflows and accelerate deployment cycles.

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

## Led the architecture, development, and deployment of highly scalable software solutions and microservices.

## Identified and implemented an automation opportunity that refreshed the Amazon Same-Day Delivery items catalog 12 hours faster, improving data freshness and reducing manual intervention.

## Pioneered the “Frequently Bought Together” widget, leveraging AI/ML models, generating over $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.

## Developed fully automated ETL solutions, empowering Amazon widgets with data generated by Machine Learning.

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

## Spearheaded the global device management microservice, enhancing seamless device interactions worldwide.

## Developed and implemented a system to dynamically execute Python scripts and manage dependencies for a vast network of routers.

## Established key performance metrics 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.

## Achieved a 50% reduction in config setup time through strategic caching and package management enhancements.

## 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