Aman Bhala

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Experienced Software Engineer with a solid foundation in cloud computing, microservices, and automation. Proven track record of implementing robust security features, optimizing cloud deployments, and developing end-to-end systems for automation and efficiency. Strong problem-solving skills, hands-on experience in object oriented programming languages like **C++/JAVA/Golang/C#** , open-source tools like **Kafka, Postgres, Prometheus**, **Grafana** and technologies like **Kubernetes**, **Docker**, **AWS**. Demonstrated success in delivering scalable solutions and improving performance in production environments across leading tech firms, including **Snowflake**, **General Electric**, **Intel** and **NVIDIA**. Adept at cross-functional collaboration, working with cross-geographical teams, troubleshooting, mentoring, and delivering impactful presentations to diverse audiences, including senior leadership.

EDUCATION

Arizona State University, Tempe, Arizona   August 2023 - May 2025(Expected)
Masters in Computer Science (GPA: 4.22/4.0)   Tempe, AZ

Birla Institute of Technology and Science, Pilani   August 2016 – May 2020
Bachelors in Electronics and Instrumentation Engineering (CGPA: 8.4/10)   Goa, IN
Relevant Courses: Object-Oriented Programming, Operating Systems, Computer Programming, Machine Learning

TECHNICAL SKILLS

Languages: C/C++/C#, Java, Python, HTML/CSS, Shell, SQL, Golang, Javascript, Linux/Unix, Bash Scripting

Technologies: Kubernetes(K8s), Docker, Helm, Distributed Systems, MicroServices, Object-Oriented Programming(OOPS), CI/CD practices, Agile, JSON, AWS

Tools: Jenkins, PostgreSQL, PgPool, PgBouncer, Infinispan, AWS, Git, JIRA, Azure DevOps, GitOps, Istio, Kafka, Artemis, ElasticSearch, Prometheus, Grafana, ArgoCD, Data Structures

Frameworks:, SpringBoot, Maven, Ansible, .NET framework, Heroku, NodeJs

PROFESSIONAL EXPERIENCE

Snowflake, Bellevue, USA : Software Engineer Intern   September 2024 - Present
● Integrating Firewall across 100% of deployments in Snowflake, covering over 80 cloud deployments in AWS, Azure and GCP across different regions to mitigate security incidents like DDoS attacks.
● Designing and implementing an end-to-end system for automated rule deployment to Firewall within 1 minute enabling real-time responses to security incidents.

General Electric (GE Digital) , Hyderabad, IN : Software Engineer   August 2020 - August 2023
(JAVA, Spring Boot, Python, Kubernetes, Docker, Jenkins, Ansible)
● Contributed to the development of microservices and integration of open-source tools on K8s cluster to provide features such as **login**, **monitoring**, **logging**, **encryption**, and **Postgres,** facilitating a seamless **cloud migration**.
● Developed **Python scripts**, **Docker Images**, **Ansible tasks**, **Jenkins Pipelines & K8s deployment pipeline** to automate release activities which resulted in increasing efficiency by **85%,** fostering productivity and efficiency organization-wide.
● Enhanced **JAVA** & **Go K8s Operators** & **microservices,** driving feature enhancements & reducing **AWS** costs by **10%.**
● Developed comprehensive **test cases** in **JAVA** highlighting product features. Engineered the **Product Deployment Image(PDI)** for effortless deployment of these test cases on any K8s cluster.
● Implemented **cluster hardening** techniques, enabled cluster-wide **traffic encryption** using **mTLS**, **logging usernames** in pod logs & proactively addressed **Critical Vulnerabilities and Exposures(CVE's)** in docker images.
● Created **queries, alerts & dashboards,** significantly improving observability & real-time insights into system

performance.

● Provided **support** to customer teams, including on-call assistance, efficiently resolved **production issues**, and enhanced **documentation** for seamless product utilization.

NVIDIA, Bengaluru, IN: Software Engineer Intern   January 2020 - June 2020
● Contributed to the **Golden Register** team, enhanced testing capabilities for next-generation chips by incorporating **support** for advanced/newer fields in **Python tools**.
● Updated **Python** test cases for both existing tools and newly introduced features, ensuring **robustness and functionality**.
● Migrated codebase from legacy **Python(2to3)** and used **Pylint** package to enhance code quality & follow best practices.

PERSONAL PROJECTS

E-commerce Application - SpringBoot, JAVA, Docker, K8s , AWS, Git

● Developed a **microservices** based E-commerce **web application** with user login and intuitive web pages.

● Used **Model-View-Controller(MVC) architecture**, created **REST API's** for interaction between model and view layers, spring security to secure webpages and In-memory H2 database to store credentials and buyer and seller data.

Optimal Living Location Finder - C#, ASP.Net, XML, AWS, Git

● Developed **"Optimal Living Location Finder"** dynamic web application encompassing a user-friendly GUI with ASPX pages and controls, integrating Forms Security. Users can input and evaluate multiple locations based on criteria such as weather, crime rates, clean energy potential, and news analysis.

● Implemented public Default page outlining application features and sign-up process, Member page for user registrations with an image verifier, and a Staff page controlled by administrator access via XML file management.