Pooja B

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Verify AWS Solutions Architect Badge

Summary:

7.4 years of experience In IT with DevOps, Supporting Infrastructure (Hybrid cloud, AWS, Linux, Windows), Automation using Jenkins (CI/CD), Terraform, Ansible, TDD, ELK, Kubernetes, Python, SAST, DAST and Groovy.

Master of Science, Computer Science June 2016 - Dec 2017

Fairleigh Dickinson University, Teaneck, New Jersey **CGPA: 3.95/ 4.0**

TECHNICAL SKILLS:

Cloud Services	**Amazon Web Services** {IAM, ACM, Ec2 Lambda, Load Balancer (ALB, NLB), S3 buckets, EKS, AWS Fargate, Cloud Watch, Cloud Front, WAF VPC, DMS}
Containerization (Cloud Native) Platforms	**Kubernetes** (AWS Fargate , AWS EKS)
Operating Systems	Linux
Source control & Tools	GIT and SVN
IaC Tools (Configuration Management, Provisioning tools)	Ansible, Terraform
Continuous Integration & Continuous Deployment tools	Jenkins, GitHub actions
Security Testing Tools	SAST , DAST
Project management framework: Agile framework	Jira software - Scrum and Kanban boards
Web servers	WordPress, Apache Tomcat, JBOSS.
Scripting Languages	Bash scripting, Python scripting, Groovy
Logging and Monitoring	AWS Cloud Watch, ELK, Splunk, Prometheus,

PROFESSIONAL SUMMARY:

- Experienced in migrating servers from on-prem data centers to AWS cloud.
- Hands-on experience with databases (MySQL, Postgres) creating users, performing dump/restore, and taking automated snapshots.
- Used AWS Fargate Serverless **Kubernetes cluster** to orchestrate the deployment of microservices, scaling, and management of Docker Containers to deploy microservices.
- Experience working with Source code management tools like SVN, and GIT and used Automation tools like Ansible, and Chef.
- Implemented a CI/CD pipeline involving Git, Jenkins, Gradle, Maven, Docker, Nexus, and Ansible for complete automation from commit to deployment.
- Knowledge of Software Development Life Cycle Methodologies Waterfall, and Agile.
- Experienced in Designing and implementing secure continuous integration and continuous deployment (CI/CD) pipelines, integrating automated security testing (such as static code analysis, dynamic application security testing, and software composition analysis) into the build and deployment process.
- Integrated Static application security Testing (SAST) and Dynamic Application Security Testing (DAST) seamlessly into CI/CD

pipelines, ensuring automated and continuous security assessments throughout the development lifecycle.

- Implemented **SAST** for early identification of code-level vulnerabilities and **DAST** for runtime **security assessment** in CI/CD, enabling swift remediation actions and fostering a proactive security culture within development teams.
- Collaborated with developers in deployment of applications on AWS cloud leveraging **Elastic beanstalk**, deployed. cloud stack using Chef and AWS OpsWorks.
- **Scripted Lambda** functions in **python** for AWS's lambda to transform and run analytics on big data sets on EMR clusters.
- Hands-On event-driven and scheduled **Lambda** functions to trigger workflows across **AWS** resources.
- Proficient on creation of **Cloud Formation Templates** in YAML and JSON format to set up AWS services as IaC
- Strong work ethic with good Interpersonal and organizational skills.
- Ability to work under minimal supervision and guidance.
- Promote empathy towards peers and clients and respect cultural diversity and neurodiversity at workplace.

WORK EXPERIENCE:

Role: DevOps Engineer, (client: *Blackrock Financial Inc),* San Franscisco, CA Oct 2018– Till Date

Impact:

1. **Version Control and Collaboration:**
   - Managed **SVN** repositories, ensuring version control best practices for collaborative development.
   - Implemented and enforced branching strategies, facilitating streamlined development processes.
2. **Infrastructure Automation and Optimization:**
   - Leveraged **Terraform** to define and deploy infrastructure, automating AWS resource provisioning.
   - Orchestrated **AWS cloud solutions**, optimizing resource utilization and enhancing scalability.
   - Automated deployment, scaling, and management of containerized applications within **Kubernetes clusters**.
   - Developed **Jenkins** pipelines for automated builds, tests, and deployment of applications.
   - Worked on Routing and traffic management between VPCs and external network by configuring route tables and Transit Gateways.
   - Streamlined CI/CD processes, reducing deployment time and increasing release frequency.
   - Designed and implemented high availability architecture using load balancers (**ALB**) to ensure uninterrupted service for critical applications, reducing downtime by 30%.
   - Established automated health checks and failover mechanisms in load balancers to detect and mitigate backend server failures, enhancing system reliability and fault tolerance.
   - Enhanced existing scripts written in **Shell** and **Python**.
3. **Security and Compliance:**
   - Collaborated with cross-functional teams to design and implement secure and cost-effective AWS environments.
   - Implemented alerting mechanisms for rapid identification and resolution of performance issues.
   - Developed and implemented security automation and orchestration workflows.
   - Integrated security testing tools into **CI/CD pipelines** to automate security checks.
   - Conducted Dynamic Application Security Testing (**DAST**) and Static Application Security Testing (**SAST**) to identify and address **vulnerabilities**.
   - Reduced the number of security vulnerabilities in production applications by 20% by using **Checkmarks**.
   - Worked on **CloudFormation** template for automation of web application deployment, integrated monitoring to **CloudWatch**, and configured alarms to monitor SLI breaches.
   - Utilized **Burp Suite** for web application security testing, identifying and addressing vulnerabilities.

Change:

1. **Infrastructure Modernization:**
   - Led Kubernetes implementation, orchestrating containerized applications for scalability and resilience.
   - Worked on Migration from **Jenkins** to **Concourse**.
   - Upgraded Ansible Tower to the latest versions and migrated **Ansible Tower** to **AWX**.
2. **Process Optimization and Documentation:**
   - Documented all production issues, implementation challenges, developer instructions, and application installation runbooks in Confluence wiki pages.
   - Held weekly touch-point calls to resolve merging issues on source code during build and release processes by conducting meetings with developers and managers.

- Coordinated with various cross-functional teams across Platform IT operations to ensure smooth functioning of projects.

Improvement:

1. **Monitoring and Performance Enhancement:**
   - Ensured infrastructure consistency and repeatability through **Terraform** configurations.
   - Utilized monitoring tools (**Prometheus and Grafana**) for server/application monitoring, high availability, and capacity planning.
   - Remediated security vulnerabilities identified by Checkmarks using secure coding practices and industry best practices.
2. **CI/CD Pipeline Enhancement:**
   - Integrated security testing tools into CI/CD pipelines to automate security checks.
   - Conducted Dynamic Application Security Testing (**DAST**) to identify vulnerabilities in running applications.
   - Implemented **Checkmarks** for Static Application Security Testing (**SAST**) tools and processes to analyze code for security flaws.

Environment/Tools: Linux OS, Python, JIRA, Svn, Ansible, AWS/Cloud, Kubernetes, Ansible, AWS Code Commit.

DevOps Engineer *(Asthma Allergy and Immunology Center)*

Feb 2018-Oct 2018

Responsibilities:

To primarily contribute to Company's strategic adoption of pay-what-you-use IAAS model of Public Cloud services where my role is to Develop and maintain end-to-end Continuous Integration and Continuous Delivery Pipelines for applications and infrastructure hosted in AWS cloud using AWS Developer tools as well as for the applications being hosted on On-Prem.

Outcomes:

Played part to company's objective SDLC move from traditional waterfall to agile pipeline. Time expenses for the Continuous Integration pipeline reduced to greater than 50% with the migrations to new CI tool, Version Control tool- significantly cut down on the FTE resourcing by 50% for Operations team as incidents count reduced in half over the quarter and outgrew SLO expectations by 30% for the Operations team across the function. This project also incentivized developers' work by improving deployment velocity by 50% over the course of a sprint on remediation of bug fixes and release of software features.

Projects and BAU:

- Worked on automation of Dev, Test environment builds using the continuous integration tools like Jenkins, Ant and Shell Scripting
- Worked on Migration of Version/Source Control of large repositories, history, files away from Perforce to Git by cleaning up and exporting data to **Git**, mapped users and translated granular Perforce permissions to equivalent permissions for **Git** hosting services.
- Enforced simple workflow permissions on the newly configured **Git** Structure after migration from Perforce.
- Worked on S3 bucket where code pipelines, artifacts, IAM role, SNS topic are stored.
- Worked on building **solutions architecture POCs** in development environment for the pilot applications using Amazon web cloud suite of services (AWS) ranging from creating EC2 instances, security groups, Virtual private connections, Route 53, RDS, S3, SQS, SNS, Cloud formation in OS: Amazon Linux AMI 2015, RHEL 7.x, SuSE Linux Enterprise Server 12, Ubuntu 13.x 14.x and Windows 2012 R2, 2008 R2
- Managed Dev Database servers for MySQL 5.x and Oracle 11.x **using RDS in multiple Available zones**, have setup monitoring for CPU Utilization and limited DB connections by implementing alarms integrated to pager duty via Cloud watch.
- Showcased the gains to Stakeholders and PMO and obtained resources for set-up of Continuous Integration from ideation at Dev environments to Production environment.

Role: Build and Release Intern **June 2017 – Feb 2018**

Client: GoDaddy, Inc Tempe, Arizona

Environment/Tools: Subversion (SVN), WLST, Perforce, Perl Scripts, UNIX scripts, Jenkins, Perl Scripts, Shell Scripts, XML,

Responsibilities:

- To primarily contribute to migration efforts of Company's strategic move out from framework from legacy revision
- Control software version control, build system and siloed system to CI/CD system.

Outcomes:

- This significantly cut down on the FTE resources by 50% for the Operations team as incidents count reduced in half over the quarter and outgrew SLO expectations by 30% for the Operations team across the function.

- This project also incentivized developers' work by improving deployment velocity by 50% over the course of a sprint on remediation of bug fixes and release of software features.
- Worked on POC set up for Continuous integration and automated load-testing system in a staging environment for java applications like Dev, QA, UAT.

Projects and BAU:

- Installed Jenkins on RHEL(Linux) machines and configured Master/Slave components to execute multiple parallel builds through build farm.
- Scripted UNIX, Perl scripts for automating build processes at QA, Staging environments.
- Showcased the gains to Stakeholders and PMO and obtained resources for set-up of Continuous Integration from ideation at Dev environments to Production environment.
- Performed merges, branch, and label creation and resolved conflicts during merge in Perforce Version control software.
- Managed roles for Users and groups in Perforce.
- Maintained configuration files for each application for build purpose and installed on different environments.
- Proposed various branching strategies for SVN repositories for various use-cases.
- Developed backup scripts for SVN subversion for weekly backup execution.
- Maintained SVN repositories for branching, merging, and tagging.
- Integrated WLST script to Shell script and used WebLogic as web application server for deploying WAR and EAR build artifacts.
- Used Jenkins for Continuous Integration and deployment into Tomcat Application Server.
- Worked on Continuous delivery pipeline by automating deployment and application server bounce process using WLST scripts.
- Developed Maven scripts to automate build and release tasks of JAR and WAR artifacts.

Role: Hadoop/Linux Administrator **June 2015 – Dec 2015**

Radiant Technologies Pvt Ltd - Hyderabad, India

Environment/Tools: Hadoop(HDP,CDP), Linux, Disaster Recovery , Bash Scripts, Shell

Projects and BAU:

- Collaborated with 2 external vendors to perform POC and onboard best fit technology to Hadoop platform.
- Performed system analysis, documentation, testing, implementation, and user support for platform products.
- Maximized project productivity by keeping detailed records of daily progress and identifying and rectifying areas for improvement by automation.
- Mentored 3 new hires in the team on company policies and procedures by designing and developing training programs.
- Worked on design and architecture of multiple platforms including Hadoop technology and other internal tools of supported software products.
- Highlight Project: Enabled security features across HDP stack for big data solutions.
- Disaster Recovery activities as part of biannual firmwide drills.
- Worked on automation of processes using Crontab and shell scripting using Bash.
- Wrote Technical documentation for various projects and worked with technical writer to finalize the documents.
- Responsible for guiding and working with team members on assigned tasks for the Data analytics technology's function.