**Supraja B**

**** [**bsupraja1398@gmail.com**](mailto:bsupraja1398@gmail.com) **Sr. DevOps Engineer**

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**PROFESSIONAL SUMMARY:**

*IT professional with 10 years of experience as**accomplished Sr. DevOps Engineer with major focus on cloud, CI/CD pipeline and virtualization technologies. Experience in tools like Terraform, Ansible, Docker, Kubernetes, several scripting languages, and monitoring tools.*

* Over **10 years** of **DevOps Engineer** and hands-on experience in designing, implementing, and optimizing end-to-end DevOps pipelines and cloud-based infrastructure.
* Extensively worked on AWS Cloud services like EC2, VPC, IAM, RDS, ELB, EMR, ECS, Auto - Scaling, S3, Cloud Front, Glacier, Elastic Beanstalk, Lambda, Elastic Cache, Route53, Ops Works, Cloud Watch, Cloud Formation, RedShift, DynamoDB, SNS, SQS, SES, Kinesis Firehose, Lambda, Cognito IAM.
* Experience in changing over existing AWS infrastructure to Server less architecture (AWS Lambda, Kinesis) through the creation of a Serverless Architecture using Lambda, API gateway, Route53, S3 buckets.
* Experience in designing Terraform and deploying it in cloud deployment manager to spin up resources like cloud virtual networks, Compute Engines in public and private subnets along with Auto Scaler in Google Cloud Platform.
* Experience in using tools like Docker Compose, Kubernetes, for Orchestrating and deploying the services related to the Containers and with container-based deployments using Docker, working with Docker images, Docker hub.
* Expertise in deploying Ansible playbooks in AWS environment using Terraform as well as creating Ansible roles using YAML. Used Ansible to configure Tomcat servers and maintenance.
* Strong experience in using build management tools like Maven, Ant, and Gradle for the building of deployable artifacts (jar, war, and ear) from source code and used artifacts repository managers like Nexus, JFrog for Maven builds.
* Hands-on experience in using OpenShift for container orchestration with Kubernetes, container storage, automation, to enhance container platform multi-tenancy.
* Experience with Kubernetes architecture and design, troubleshooting issues and multi-regional deployment models and patterns for large-scale applications.
* Proven track record of showcasing strong problem-solving skills, taking a proactive approach to system health, and efficiently troubleshooting complex issues.
* Leveraged a background in system administration, infrastructure management, or software engineering to optimize systems for peak performance.
* In-depth knowledge of computer applications and scripting like Shell, Ruby, Groovy, Perl, and XML. Utilized MySQL, MongoDB, DynamoDB and Elastic cache to perform essential database administration. Implementation of various applications using system monitoring tools and Technical Expertise on Nagios, New Relic.
* Built Jenkins jobs to create AWS infrastructure from GitHub repos containing Terraform code and administered/engineered Jenkins for managing weekly Builds and integrated Jenkins with various DevOps tools such as Nexus, SonarQube, Chef.
* Expertise in Monitoring tools like Nagios and Splunk for Monitoring/Network Monitoring/Log Trace Monitoring.
* Expertise in tracking tool JIRA and triaged the issues and maintained bugs using JIRA tool.
* Proficient in scripting languages (Bash/Python) and data structures (YAML, JSON, XML, etc.) in the context of templating and automation.

**Technical Skills:**

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| **Programming/Scripting Languages** | Shell, Python, Ruby, Bash , YAML , JSON, XML |
| **Software Methodologies** | Agile, SDLC Waterfall, Scrum, TDD |
| **Container/Orchestration Tools** | Kubernetes, Docker, OpenShift |
| **Web Technologies** | JIRA, SonarQube, Datadog, Splunk, Elasticsearch, Logstash and Kibana (ELK) |
| **Cloud** | AWS, Azure, GCP |
| **Web Services** | SOAP, RESTful |
| **IDEs** | IntelliJ, Eclipse, Net Beans, Spring Tool Suite, RAD, JBPM |
| **Application/Web Servers** | Web Logic Server, Web Sphere Application Server, Apache Tomcat, JBoss |
| **Databases** | Oracle, SQL Server, DB2, MySQL,Postgres, No-SQL Database |
| **Build Scripts** | Maven, Ant , Gradle , MSbuild |
| **Testing Tools** | JUnit, Log4J, Mock Framework, Cucumber, Selenium |
| **Version Control Tools** | GIT, Subversion , Bitbucket |
| **Testing Tools/Others** | Junit, SoapUI, Putty, Mockito |

**Client: Dell Austin Oct 2019 – Till Date**

**Role: Sr. DevOps Engineer/Senior software engineer**

**Responsibilities:**

* Involved in designing and deploying multitude applications utilizing almost all of AWS stack (Including EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM) focusing on high-availability, fault tolerance, and auto-scaling.
* Created fully automated CI/CD DevOps processes and tools for multiple projects using Chef and AWS.
* Used Maven as a build tool on java projects for the development of build artifacts on the source code.
* Proficient in RESTful API development using Python, enabling seamless communication between applications and services.
* Experienced in scripting and automation using Python, simplifying complex tasks, and improving operational efficiency.
* Skilled in Python, with experience in scripting for automation and data manipulation tasks.
* Strong working knowledge of shell scripting in Linux for tasks such as system administration, automation, and log analysis.
* Proficiency in Python for various tasks, such as web scraping, data analysis, and automation, showcasing versatility in using the language for different purposes.
* Collaborated with cross-functional teams to develop automation scripts and tools using Python, streamlining repetitive tasks.
* Implemented AWS Lambda functions in various programming languages, including Python, Node.js, and Java, to perform tasks such as data processing and file manipulation.
* Developed serverless applications and microservices using AWS Lambda, enabling event-driven architecture and efficient resource utilization.
* Managed GitHub repositories for source code and collaborative projects.
* Implemented streamlined code review processes through pull requests.
* Proficient in handling data serialization formats such as JSON and XML, ensuring seamless data exchange between clients and RESTful web services.
* Orchestrated and optimized containerized applications using OpenShift, ensuring seamless deployment, scaling, and management.
* Spearheaded the integration of OpenShift into existing infrastructure, enhancing application delivery pipelines and fostering collaboration across teams.
* Implemented security measures within OpenShift environments, ensuring compliance with industry standards and safeguarding against potential threats.
* Leveraged OpenShift for dynamic scaling, efficiently allocating computing resources based on application demands for optimal performance.
* Configured monitoring and logging solutions in OpenShift, providing real-time insights and proactively addressing issues to maintain high availability.
* Proficient in CloudBees Jenkins, including installation, configuration, and administration.
* Extensive experience in setting up and maintaining Jenkins pipelines for continuous integration and delivery.
* Expertise in writing Groovy scripts for defining Jenkins pipelines as code, ensuring maintainability and flexibility.
* Implementing Jenkinsfile-based workflows to automate build, test, and deployment processes.
* Configuring and troubleshooting plugins to optimize CI/CD pipelines.
* Detected and resolved code duplication using SonarQube, ensuring a clean and maintainable codebase, reducing redundancy, and enhancing development efficiency.
* Automated system maintenance tasks using PowerShell scripting, ensuring consistent and error-free execution.
* Proficient in error handling and logging techniques in PowerShell scripts for effective troubleshooting and issue resolution.
* Collaborated with system administrators to develop custom PowerShell solutions tailored to specific infrastructure requirements.
* Skilled in using various command-line utilities and tools in Bash, enabling tasks such as text processing, file compression, and network diagnostics, improving productivity and system management.
* Experienced in working with variables, loops, conditional statements, and functions in Bash, ensuring dynamic and responsive scripts tailored to specific requirements.
* Knowledgeable about performing file and directory operations in Bash, including creation, deletion, renaming, and permission management, ensuring effective file system management.
* Managed technical debt metrics in SonarQube, prioritizing and addressing technical debt items, ensuring ongoing codebase improvement, and reducing long-term maintenance challenges.
* Optimized complex search queries in Splunk, ensuring efficient data retrieval and analysis, reducing search execution time, and improving overall system performance.
* Created custom dashboards in Splunk, visualizing key performance indicators (KPIs) and log data trends, enabling stakeholders to monitor system health and performance in real-time.
* Developed and implemented Groovy scripts to automate repetitive tasks, improving team efficiency and reducing manual workload.
* Skilled in Rust programming language for low-level systems development, ensuring optimal resource utilization.
* Applied Rust's ownership system to achieve memory safety, preventing common programming errors in concurrent environments.
* Leveraged Rust's zero-cost abstractions for high-level constructs without sacrificing runtime performance in system-level coding.
* Implemented concurrent programming solutions in Rust, utilizing threads, channels, and the async/await syntax for effective parallel execution.
* Expertly employed OpenShift's Kubernetes foundation for the deployment and management of containerized workloads.
* Ensured a secure and stable foundation for OpenShift deployments through proficient Linux administration.
* Seamlessly integrated OpenShift with the Red Hat ecosystem, capitalizing on synergies between technologies for a comprehensive solution.
* Implemented OpenShift for cloud-agnostic deployments, enabling consistent application management across various environments.
* Utilized Rust's trait system to promote code reuse and facilitate generic programming, enhancing maintainability.
* Applied Rust's powerful pattern matching features to express complex conditional logic concisely and maintain code clarity.
* Implemented and managed AWS IAM policies and roles, ensuring least privilege access and robust security controls for AWS resources.
* Implemented AWS CloudWatch for real-time monitoring and management of AWS resources, enabling proactive issue detection and resolution.
* Implemented IAM roles for EC2 instances and Lambda functions, enabling secure communication and interaction with other AWS services.
* Extensively used Groovy scripts to customize Jenkins pipelines, enabling dynamic build and deployment processes tailored to project requirements.
* Maintained comprehensive documentation within Bitbucket repositories, providing clear guidelines, README files, and version histories for efficient knowledge transfer and onboarding.
* Proficient in integrating Terraform configurations with version control systems like Git, enabling efficient collaboration and change tracking.
* Created Helm charts for Kubernetes applications, defining configuration parameters and enabling simplified and repeatable deployments.
* Maintained Bitbucket repositories, overseeing code merges, conflict resolutions, and ensuring codebase integrity throughout the development lifecycle.
* Implemented Dynatrace for APM, monitoring end-to-end application performance, identifying bottlenecks, and optimizing code and infrastructure, ensuring seamless user experiences.
* Conducted root cause analysis using Dynatrace, diagnosing performance issues down to the code level, collaborating with development teams for rapid issue resolution.
* Utilized Red Hat Enterprise Linux (RHEL) as a stable and secure foundation for critical applications and services.
* Implemented Red Hat Ansible for automation of routine operational tasks, enhancing system scalability.
* Applied Red Hat Satellite for efficient management of RHEL infrastructure, including patching and updates.
* Configured and maintained Red Hat Virtualization for optimized virtual machine management.
* Collaborated with Red Hat support for prompt issue resolution and performance optimization.
* Implemented Red Hat Identity Management solutions for centralized authentication and access control.
* Deployed and managed applications on OpenShift clusters, leveraging its container orchestration and management capabilities.
* Orchestrated the design and implementation of on-premises infrastructure to meet business requirements.
* Managed on-premises data centers, ensuring high availability and reliability of critical systems.
* Conducted hardware and software evaluations for on-premises infrastructure upgrades and optimizations.
* Implemented backup and disaster recovery solutions for on-premises systems, ensuring data integrity.
* Collaborated with vendors for on-premises hardware and software support, ensuring timely issue resolution.
* Led the implementation of server virtualization technologies for efficient resource utilization.
* Implemented and maintained on-premises networking solutions, ensuring seamless connectivity.
* Integrated OpenShift deployments with CI/CD pipelines, automating the deployment process and ensuring rapid and reliable application releases.
* Created and managed Helm charts for Kubernetes applications, simplifying the deployment and scaling of containerized applications.
* Monitored Jenkins performance and made necessary optimizations, enhancing overall build efficiency and ensuring timely project milestones.
* Implementing and managing infrastructure as code to automate the provisioning and configuration of infrastructure components, ensuring consistency and reproducibility.
* Developing and maintaining robust continuous integration and continuous deployment pipelines to automate the software delivery process, including code builds, testing, and deployment to various environments
* Writing automation scripts and tools to streamline manual tasks, reducing human error and accelerating the deployment and configuration of software components.
* Implementing monitoring solutions to track system performance and logs for proactive issue detection, troubleshooting, and optimization of system resources.
* Responding to incidents promptly, identifying root causes, and implementing corrective actions to minimize downtime and enhance system reliability.
* Collaborating with security teams to integrate security practices into the CI/CD pipelines and infrastructure, ensuring a secure and compliant software delivery process.
* Implemented monitoring solutions like ELK Stack and Prometheus, ensuring real-time visibility into system health and enabling proactive issue resolution.
* Integrated Terraform with various cloud providers and external services through provider plugins, enabling a wide range of resource management capabilities.
* Set up synthetic monitoring tests in Dynatrace, simulating user interactions across web and mobile applications, ensuring continuous monitoring of application availability and performance.
* Expert in developing Ansible playbooks to automate tasks such as server provisioning, software installation, configuration management, and application deployment.
* Integrated Ansible into CI/CD pipelines for automated application deployment and infrastructure provisioning, ensuring efficient and reliable software releases.
* Competence in Linux system administration, including system configuration, user management, and software installation, ensuring smooth operation of Linux-based systems.
* Created Docker images using a Docker file, worked on Docker container snapshots, removing images, and managing Docker volumes.
* Proven experience in Agile development methodologies, including Scrum or Kanban, fostering collaboration, iterative development, and continuous improvement.
* Proficient in using Agile tools like Jira for project management, sprint planning, and issue tracking.
* Configured and setup Kubernetes Cluster environment with master and Nodes. Managed local deployments in Kubernetes using minikube, creating local clusters and deploying application containers.
* Setup the CICD for the application using Jenkin and worked on Jenkins for continuous integration with Gradle and GitHub.
* Maintaining comprehensive documentation for infrastructure configurations, deployment processes, and troubleshooting procedures to facilitate knowledge sharing and onboarding of new team members.

**Environment:**  GIT, Puppet, Power shell, AWS, Python, Java/J2EE, ANT, MAVEN, JIRA, XML, Web logic, Perl Scripts, Shell scripts, MY SQL, agile, LINUX.

**Client: Optum, TN            July 2018-Sep 2019**

**Role: DevOps Engineer /Principal Software Engineer**

**Responsibilities:**

* Initiated responsibility for administering the GIT servers which included install, upgrade, backup, adding users, creating repository/branches, troubleshooting merging, tagging issues & maintenance.
* Involved in HashicorpVault Namespace automation using ServiceNow pages.
* Managed dependencies within Helm charts, ensuring compatibility and consistency between different components of the application stack.
* Built custom CMS solutions using PHP and MySQL, enabling easy content updates and management.
* Maintained version-controlled Helm charts, enabling collaboration among team members, and ensuring proper tracking of changes and updates.
* Skilled in integrating Cassandra with Python and other programming languages for seamless data access and manipulation.
* Proficient in Python programming language, developing robust and efficient applications for various domains.
* Collaborated with data engineers to design and implement ETL (Extract, Transform, Load) pipelines using Cassandra as the data store.
* Deployed and configured OpenShift clusters on various environments, ensuring high availability and scalability.
* Orchestrated containerized applications using Kubernetes within OpenShift, managing deployments, scaling, and rolling updates.
* Utilized tools like Ansible or Terraform to automate the provisioning and configuration of OpenShift infrastructure.
* Implemented and managed Custom Resource Definitions to extend and customize Kubernetes resources based on specific application requirements.
* Configured and optimized pod networking, service discovery, and load balancing within OpenShift clusters.
* Implemented and managed persistent storage solutions for applications running on OpenShift, ensuring data integrity and availability.
* Implemented Role-Based Access Control (RBAC) policies and security best practices to secure OpenShift clusters and applications.
* Wrote Groovy scripts to integrate with various REST APIs, facilitating seamless communication between different software components and services.
* Skilled in implementing error handling mechanisms in Bash scripts, including exit codes, error messages, and logging, ensuring graceful degradation and informative feedback during script execution.
* Utilized Groovy scripting for data manipulation and transformation tasks, ensuring data accuracy and consistency across different systems.
* Integrated SonarQube scans into CI/CD pipelines, automating code analysis during the build process, ensuring continuous feedback to developers and timely issue resolution.
* Managed version control and collaborative coding efforts using Bitbucket, ensuring a streamlined and organized development process.
* Utilized SonarQube reports and insights for developer education, encouraging developers to write clean, secure, and high-quality code, ensuring continuous skill enhancement.
* Managed incidents and problems in Dynatrace, tracking performance anomalies, prioritizing critical issues, and coordinating remediation efforts, ensuring minimal downtime and disruptions.
* Integrated Dynatrace monitoring into CI/CD pipelines, automatically triggering performance tests, ensuring that new code releases meet performance standards before deployment.
* Conducted capacity planning using Dynatrace insights, forecasting future resource needs based on historical data and trends, ensuring scalability and optimal resource provisioning.
* Used Ansible to Setup/teardown of ELK stack (Elasticsearch, Log stash, Kibana) and troubleshoot the build issues with ELK and work towards the solution.
* Developed custom scripts and automation workflows in Splunk using SPL (Search Processing Language), automating repetitive tasks, and enhancing operational efficiency.
* Conducted capacity planning and performance tuning in Splunk, optimizing resource allocation and configuration settings, ensuring optimal performance under varying workloads.
* Provided documentation and training sessions on Splunk best practices, search optimization techniques, and dashboard creation, ensuring knowledge dissemination within the team.

**Environment**: - Azure, Azure Devops, Terraform, Maven, Jenkins, Ansible, Azure ARM Templates, Azure AD, Azure Site Recovery, Kubernetes, Python, Ruby, XML, Shell Scripting, PowerShell, Nexus, JFrog Artifactory, Jira, Ansible, Docker, Windows Server, Nagios, Gitlab, Cloud Foundry, PCF, PKS

**Client: Amway, ADA,Michigan            Nov 2016–May 2018**

**Role: DevOps Engineer**

**Responsibilities:**

* Managed Git servers, performing tasks such as installation, upgrading, backup, user management, repository setup, and branch management.
* Debugged and resolved merging, tagging, and other version control issues, ensuring a smooth collaborative development environment.
* Implemented and maintained HashiCorp Vault in Active-Active-Active mode across 3 datacenters, ensuring high availability and reliability of secrets management.
* Automated HashiCorp Vault Namespace using ServiceNow, streamlining configuration management processes and enhancing efficiency.
* Automated integration with Terraform and Azure deployments, enhancing overall efficiency and security.
* Installed Kubernetes clusters on Azure using Terraform, Resource Manager templates, and Azure Kubernetes Service, ensuring scalable and efficient container orchestration.
* Utilized Docker components for packaging applications and designed the entire application development cycle, optimizing deployment of multiple apps.
* Utilized Ansible for setup/teardown of ELK stack (Elasticsearch, Logstash, Kibana) and resolved build issues efficiently.
* Managed servers on Microsoft Azure Platform and Azure Virtual Machine instances using Ansible Playbooks, tasks, and roles, automating system operations.
* Created YAML scripts and Ansible Playbooks for automating infrastructure across various environments, enhancing consistency and reliability.
* Developed Python and Bash scripts for monitoring and optimizing retail management application systems, increasing overall efficiency.
* Managed services, maintained log files, monitored events, and troubleshooted system problems using Nagios, ensuring system reliability and performance.

**Environment**: - Azure, Azure Devops, Terraform, Maven, Jenkins, Ansible, Azure ARM Templates, Kubernetes, Python, Ruby, XML, Shell Scripting, PowerShell, Nexus, JFrog Artifactory, Jira, Ansible, Docker, Windows Server, Nagios, Gitlab, PCF, PKS

**Client: Techno soft Solutions, Bangalore, INDIA Jan 2015–Oct 2016**

**Role: Software Analyst 2**

**Responsibilities:**

* Designed and deployed diverse applications using AWS services such as EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, and IAM, emphasizing high-availability and fault tolerance.
* Created fully automated CI/CD pipelines and DevOps processes for multiple projects using Chef and AWS tools, ensuring seamless integration and deployment.
* Integrated source control tools like GIT, GitHub, and build tools including Maven and Ant, streamlining development workflows.
* Developed and managed Chef Cookbooks for automated system operations, enhancing efficiency and reliability.
* Built Docker images using Docker files, managed container snapshots, and configured Docker volumes, ensuring effective containerization of applications.
* Configured and maintained Kubernetes Cluster environments with master and nodes, managing local deployments using minikube and creating local clusters.
* Utilized Ansible scripts for inventory generation and deployment to AWS instances, ensuring consistent configurations across the infrastructure.
* Installed and configured Jenkins for automated deployments, providing efficient automation solutions and reducing deployment time.
* Defined Release Process & Policy in the early stages of SDLC, ensuring streamlined development and deployment workflows.
* Documented project's software release management procedures, providing clear guidelines and enhancing project organization.

**Environment:**  GIT, Puppet, Power shell, AWS, Python, Java/J2EE, ANT, MAVEN, JIRA, XML, Web logic, Perl Scripts, Shell scripts, MY SQL, agile, LINUX.

**Client: Tavant Technologies, Bangalore, INDIA Jan 2013– Dec 2014**

**Build Engineer/Release Engineer**

**Responsibilities:**

* Installed and configured RedHat Enterprise Linux and Solaris operating systems, managing user accounts, file systems, disk quotas, and network configurations.
* Utilized Terraform and CloudFormation for infrastructure configurations, ensuring consistent provisioning and reproducibility across environments.
* Managed version control systems (Git, SVN) and implemented branching strategies to ensure codebase integrity and facilitate collaboration among development teams.
* Implemented and maintained CI pipelines, automating code changes integration, tests execution, and build artifacts generation upon commits for early issue detection.
* Developed build and deployment scripts using ANT and MAVEN in Jenkins, enabling smooth environment transitions.
* Designed and deployed AWS solutions using EC2, S3, RDS, EBS, Elastic Load Balancer, and Auto Scaling groups, ensuring scalable and reliable cloud infrastructures.
* Documented project's software release management procedures, ensuring clear communication and streamlined processes.
* Evaluated new build and CI/CD tools, adopting suitable technologies to enhance efficiency and reliability in the build and deployment processes.
* Supported integration testing efforts by providing necessary build artifacts and environment configurations, ensuring accurate and reliable testing processes.

**Environment:**  GIT, Puppet, Power shell, AWS, Python, Java/J2EE, ANT, MAVEN, JIRA, XML, Web logic, Perl Scripts, Shell scripts, MY SQL, agile, LINUX.