

**DevOps/Cloud Engineer**

**Professional Summary:**

**AWS Cloud/DevOps** engineer with programming and problem-solving experience which includes development, automation, migration and troubleshooting in applications development, IT Operations, Cloud and information assets of an organization. Concept-to-execution driver, able to utilize various DevOps tools for infra-structure automation and incident management for both public and private cloud services with Expertise in working in an Agile-based environment to engineer, design and deliver cloud platforms.

* Overall 8+ years of experience in Infrastructure Development and Operations involving **AWS Cloud platforms, EC2, ELASTIC BEAN STACK (EBS), S3, VPC, RDS, SES, ELB, Autoscaling, Cloud Front**.
* Build servers using **AWS** includes importing necessary volumes, launching **EC2** instance, **S3** for object static web pages and created security groups, auto-scaling, load balancer, **Route 53, and SNS** as per the architecture using Infrastructure as a Code (**IAAC**) tools like **Cloud formation JSON templates**
* **Terraform Enterprise** for building infrastructure in Cloud along with **Ansible** for configuration management.
* Expertise in writing **AWS Cloud Formation templates** in **JSON** to use them as blueprints for building & deploying multiple AWS resources. integrated with **AWS Lambda** for serverless data collection.
* Experience in utilizing **AWS Cloud Formation/Azure ARM** templates to automate infrastructure provisioning and deployment to reduce time to production.
* working knowledge of Cloud networking concepts, including the management and troubleshooting of **VPC’s/VNets, IP Address Ranges, Route Tables, Subnets, Internet gateway, Transit Gateway, Load Balancers, Auto-scaling Groups/VM Scale Sets, and Security Groups.**
* Best practice in managing **Azure infrastructure**, **Azure storage** accounts and deploying workloads on **Azure virtual machines** (VMs), **virtual networks**, **cloud services**, **resource groups, express route, traffic manager, VPN, load balancing, application gateways, autoscaling and cloud services (PaaS role instances)** into **secure V-Nets and subnets.**
* Hands on experience in various **Azure Services**like Compute **(Web Roles, Worker Roles)**, **Azure Websites**, Caching, Azure SQL, NoSQL, Storage, Network services, **Azure Active Directory**, **API**Management, Scheduling, Auto Scaling, and **Power Shell**Automation.
* Experience in creating **ARM** templates for Azure platform and in migrating on premise to Windows Azure using **Azure Site Recovery** and **Azure backups**.
* Working with Automating the **Google cloud platform** Infrastructure using **GCP** **Cloud Deployment Manager** and Securing the GCP infrastructure using **Private subnets, Security groups, NACL(VPC),** etc. also Configuring and deploying instances on GCP environments and Datacentres and familiar with **Compute, Kubernetes Engine, Stackdriver Monitoring, Elastic Search** and **managing security groups**.
* Expertise in integrating **Terraform** with **Ansible**, Packer to create and Version the AWS Infrastructure, designing, automating, implementing and sustainment of **Amazon machine images** (AMI) across the **AWS Cloud environment**
* Experience in setting up of **Docker** and creating new images and getting images from **Docker Hub worked on Docker images** and containers for deploying applications.
* Extensive experience in implementing a production-ready, load-balanced, highly available, fault-tolerant, auto-scaling **Kubernetes Infrastructure, and Microservice Container Orchestration.**
* Experience in developing Ansible API using **Kubernetes** to manage and specify the copies of the containers to run the actual servers in the cloud environment. **Scheduled**, **deployed,** and managed **container** replicas onto a **node** using **Kubernetes**.
* Create clusters in **Google Cloud** and manage the clusters using **Kubernetes**(k8s). Using **Jenkins** to deploy code to Google Cloud, create new namespaces, creating Docker images, and pushing them to the **container registry** of **Google Cloud**.
* Extensively worked on **Chef Roles, Cookbooks, Recipes**, Templates, Resources**,** Attributes & Data bags.Proficient in the setup of **Chef Servers,** workstations & **bootstrapping** infrastructure **Chef Nodes** for configuration management.
* Written **Ansible Playbooks** with **Python SSH** as the Wrapper to **Manage Node Configurations** and to test Playbooks on **instances** using **Python SDK** and automated various infrastructure activities like continuous deployment, application server setup, Stack monitoring using **Ansible playbooks**.
* Experience in installing **WebLogic/tomcat** application, deployment of WAR, JAR, and EAR files, integrating with **Jenkins**, and Verifying with **Jenkins** plugins, deploying the application across all the environments using **Ansible Playbooks**.
* Experience in building, maintaining & implementing strategies of **DevSecOps** tools like **Checkmarx, Coverity, SonarQube, Qualys** into existing and new build pipelines using Groovy scripting and Dockerized containers.
* Periodically maintaining the results of **SAST, DAST, AWA & EVM** from the pipelines and facilitating with the boarder teams using automation of CICD through Rally & JIRA tools Integration.
* Used **Jenkins** as Code Deploy plugin to deploy to **AWS** and extensively worked in setting up Upstream and Downstream Jobs in **Jenkins**/**Hudson**. Worked with **Jenkins** **Pipelines**.
* Experience in load balancing and monitoring with **Nagios and Splunk**, **ELK**. Implemented **ELK** stack (**Elastic Search, Logstash,** and **Kibana**) for log indexing.
* Worked closely with Global Teams in Cloud migration and reviewing Resource Groups to build, Access of AD groups and Admin Groups for Infosec (Cloud SecOps) Team.
* Automated build and deployment process with Jenkins and Maven, eliminating 80% of manual work.
* Skilled in monitoring servers and infrastructure using **Splunk, Datadog, Prometheus, Grafana** and **CloudWatch**.
* Expert in deploying code through web application servers like **Apache Tomcat, Apache webserver, WebLogic, JBoss, WebSphere, Nginx**.
* Expertise in working in an **Agile-based** environment to engineer, design and deliver cloud-based platforms.

**Technical Acumen:**

| **Cloud** | AWS, GCP, Azure |
| --- | --- |
| **Configuration Management Tools** | CHEF, ANSIBLE |
| **IAC** | CloudFormation Templates, Terraform (Opensource & Enterprise) |
| **CI/CD Tools** | Jenkins, Hudson, Bamboo |
| **Build Tools** | ANT, MAVEN |
| **Container Tools** | Docker, Kubernetes, OpenShift |
| **Version Control Tools** | GIT, Bit Bucket, VSTS |
| **Security tools** | Aqua Scan, SonarQube, Checkmarx, Qualys. |
| **Monitoring Tools** | Prometheus, Grafana, Data Dog, Nagios, Splunk, ELK, Cloud watch |
| **Scripting** | Bash/Shell, Perl, Python, Ruby, Power shell, Json, YAML, Groovy |
| **Databases** | My SQL, Amazon Aurora, Postgres SQL, Oracle 9i/10g/11g, DB2, NoSQL (MongoDB, DynamoDB) |
| **Application Servers** | WebLogic 9.x/10.x, WebSphere 6.x/7.x/8.x, JBOSS 4.1 |
| **Web Servers** | Apache HTTP, Nginx, Apache TOMCAT |
| **Networking** | DNS, DHCP, SMTP, HTTP, SNMP |
| **IDE Tools** | ECLIPSE IDE, NETBEANS |
| **Operating Systems** | Linux (Red Hat 4/5/6/7), UBUNTU, UNIX, WINDOWS NT/2000/2003/XP/VISTA/7/8/10. |
| **Virtualization Tech** | VMware vSphere ESXi 5.x/4.x, ESX /3.x, VMware Workstation, Oracle Virtual box |

**Education:**  Bachelor of Computer Science / Punjab Technical university (December 2014)

**References:** Available on request

**Professional Experience**



**Dell Technologies - CINCINNATI, OH APRIL 2021 - Present**

**Role: Sr.Cloud DevSecOps Engineer**

**Responsibilities*:***

* Designed and maintained application deployments in AWS Cloud infrastructure utilizing services such as **Elastic Beanstalk**, **EC2, RDS, Lambda, Amazon Cognito, EKS, ECS, VPC** and managed network and security, **Route 53, Direct Connect, Transit Gateway, IAM, AWS Ops Works** (automate operations)**, AWS S3, Amazon Glacier, (storage in the cloud) and Cloud Watch** monitoring Management Gateway using **Terraform** and **Cloud formation** Templates.
* Configured AWS **Route53** to manage DNS zones globally, create record sets, DNS failover and health checks of domains, assign domain names to ELB and CloudFront accordingly which helps us in **Disaster Recovery** scenarios for **Blue-Green Environments.**
* Wrote Python scripts using the **Boto3** library to automatically spin up the instances in AWS EC2 and OpsWorks stacks and integrated with Auto scaling with configured AMI’s.
* Hands on creating CI/CD pipeline and deploying applications using CI/ CD tools such as **Jenkins, Apache Maven, Nexus Artifactory**, **Git/**Bitbucket and **Ansible**.
* Developed and maintained **Jenkins Shared Libraries** from scratch using **groovy** for several security tool automations like **Checkmarx**, **Qualys**, **SonarQube** for analysing the code, scanning for security vulnerabilities along with packaging the application, building the Docker images and deploying the war files to applications running on **Kubernetes**.
* Build Several POCs on secure **CICD** pipelines along with the infrastructure integration which involves **Qualys** for **DAST**, **Checkmarx** for **SAST**, **Prisma**/**Twistlock** for **container/Image** Scanning through **Jenkins**, **AWS Code pipeline, CodeBuild, Code Deployment**.
* Automating streamlining operations and process of Infrastructure and **Secure CICD** process through organization developed tool **CICADA** (Continuous Integration Continuous Application Deployment Automation) which involves Jenkins **CICD**, **AWS elastic Beanstalk** with other generic templates to deploys into **EKS** and **ECS**.
* Automated **CICD** pipelines and build **infrastructure** using **Terraform**, **CloudFormation**, **Groovy**, **yml**, **Bash** & **Python** **scripting for** **AWS Lambda** which helps the non-CICADA users in with **one click automation**.
* Developed rules and policies **for Imperva WAF** (**web application firewall**) and deployed to various application across the board also implemented **Imperva WAF** for existing applications to encounter the application **firewall attack**.
* Provisioned Multiple **EKS** clusters using Terraform Shared module and used Helm builder to do deployments where used **ECR** to store docker images and Nginx as reverse proxy.
* Developed, Build and maintain several docker images which involves **Dockerized CLI’s** for the security checks where the application teams can easily consume these images to performs security operations in their deployments.
* Build the **Golden Images** scheduled for every month cycle which has included all the security measures and several security and monitoring tools like **Splunk**, **CloudStrike** along with other tools needed for the development and hosting the applications.
* Configured Federation services for the Applications **Single-SignOn** in AWS cloud using AWS IAM service also managed automatic backups of data into S3. Created Alarms and Alerts in **CloudWatch** and **AWS SNS services** for monitoring the Servers Performance CPU Utilization, Diskspace, Storage and Bandwidth Utilization.
* Implemented **Secure** **Cloud Network Platform** alongwith **gateway** and **Transit Gateway** which helps in monitoring the external access to the application in the AWS cloud. Where allows whitelisting and blacklisting the Traffic flow based on the geo-locations and the user accessibility along with the usage which includes multiple firewalls in the architecture.
* Responsible for Application & Cloud Infrastructure Security, Development & Operations as part of Data Infrastructure & Software Engineering’s **Cybersecurity team**work with developers, project leads and other members of organization to come up with solutions to security issues and ensure best practices for Infrastructure and DevOps operations.
* Building the security pipelines to perform various security checks like Static Analysis Software Testing (**SAST**), Dynamic Analysis Software Testing (**DAST**), **Container and Image Scanning** before and after the deployment process Based on the type of application and application architecture across the board which involves On-prem infrastructure, **AWS ECS, FARGATE, EC2, EBS**.
* Work closely with the Development and QA teams on architecture and technologies and Write scripts in **JSON, Terraform, Groovy** to manage and monitor different levels of the server stack: **process monitoring**, **memory monitoring**, **disk usage**, **uptime monitoring**.
* Built Dashboards in **Datadog** to monitor the infrastructure, Configured and installed **Splunk** agents on top of Linux server and container to send logs to **Splunk** to collect logs.
* **Research** and **development** of new technologies based on Application teams project pipelines and internal improvement programmes.

**Environment:** AWS**,** Terraform, Cloud Formation, Groovy Jenkins, Bash, Python, Docker, ECS, ECR, EKS, Linux, RHEL, Git, Rally, JFrog, Windows, Apache2, Splunk, CloudStrike, Checkmarx, Qualys, Prisma Cloud, Network Protocols, Virtualization, Splunk, Datadog.



**Visa – Dallas, TX Oct 2019 – March 2021**

**Role: SR. CLOUD/DevOps Engineer**

**Responsibilities:**

* Created **Azure** Automation Assets, Graphical runbooks, **PowerShell** runbooks that will automate specific tasks. deployed **Azure AD Connect**, configuring ADFS authentication flow, ADFS installation using Azure AD Connect.
* Deployed **Azure IaaS virtual machines (VMs)** and Cloud services (PaaS role instances) into secure **VNets** with Azure Internal Load Balancer and subnets.
* Created and configured HTTP Triggers in the **Azure Functions** with Application insights for monitoring and performing load testing on the applications using the VSTS.
* Created **terraform** templates for provisioning virtual networks, subnets, VM Scale sets, Load balancers and NAT rules and used terraform graph to visualize execution plan using the graph command.
* Design and implementation of **Azure Tenant in Hub and Spoke model** across 10 subscriptions and 8 regions using only Infrastructure as Code concepts.
* Developed automated orchestration to deploy IaaS Infrastructure, auto enroll in **Azure Backup and Azure Site Recovery** based upon tagging strategies.
* Deployed Modern Data Warehouse in Azure using **Azure Data Lake, Azure Data Warehouse, Azure Analysis Services and Power Bi**. Implementation was performed using Infrastructure as Code along with **Azure**
* Experienced in **Azure Role-based Access Control (RBAC)** to segregate duties within our team and grant only the amount of access to users that they need to perform their jobs.
* Deployed and optimized two tier **.NET** web application to **Azure DevOps** to focus on development by using services such as Repos to commit codes, Test Plans to trigger application and unit test, deployed artifacts to **App Service, Azure Application Insight** collects health performance and usage data of the process.
* Created, managed, and performed container-based deployments using **Docker images** containing Middleware and Applications together and Evaluated **Kubernetes** for **Docker** container orchestration
* Working on Deployment Automation of all the **microservices** to pull images from a private **Docker registry** and deploy to the **Kubernetes cluster (AKS).**
* worked and implemented **POC’s** for **cost-reducing and auto-scaling concepts** into Kubernetes cluster so that we can reduce the number nodes and cost as well.
* Created **Ansible playbooks** for configuration management and automated them with the infrastructure build in the cloud.
* Worked with **playbooks**, tasks, roles, facts, and templates for **VAR** files and configured files by conditions by keeping dynamic values and triggering **YML** files in **Ansible**.
* Developed **Ansible playbooks**, inventories, and custom **playbooks** in **YAML**, and encrypted the data using **Ansible Vault** and maintained role-based access control by using **Ansible Tower** and Implemented IT orchestration using Ansible to run tasks in a sequence which can work on different servers.
* Worked with **Splunk** admins to configure and retrieve the **access logs and operational logs** of the infrastructure in the cloud and display logs in the Splunk dashboard. Configured multiple **Ansible jobs** which will update the servers in the cloud to allow Splunk to retrieve the logs once the infrastructure is built and filter the intrusion and threads in environment.
* Establishing end-to-end workflow by integrating Cloudpassage into existing in-house **security/devops** workflows (Jira)
* Integrating Cloudpassage into the CI/CD process for scanning the base images for **vulnerabilities.**
* Configuring the **alert rules** through Alert Manager from **Prometheus** Server and maintaining the constant server capabilities through **Kubernetes** Cluster Orchestration tool.
* Built **Grafana** Dashboards to scrape logs and visualize as per queries.

**Environment:** Azure**,** Terraform, PowerShell, Azure AD, Azure RBAC, Kubernetes, Docker, Ansible Tower, OpenShift, Linux, RHEL 6.x, Git, Jira, JFrog, Windows, Bash, Python, Apache2, Splunk, Grafana, Prometheus, OpenStack, Network Protocols, Virtualization.



**FedEx, Memphis, TN Aug 2017 – Sept 2019**

**Role: CLOUD/DevOps Engineer**

***Responsibilities:***

* Building resources on AWS cloud using code automation, while maintaining on-prem resources using **Terraform Enterprise** and **Cloud Formation Templates** for **AWS cloud infrastructure orchestration, Ansible Tower** for Configuration management by building infrastructure for application deployments along implementing **security controls** on the other hand by testing the POC applications.
* Worked with **Cross-account S3, KMS encryption** setup for internal data fetch from different Cloud providers.
* Working with **Terraform Enterprise** by creating **workspaces** for the applications and infrastructure to be deployed and **automated** them where users can provision infrastructure along with the application on a single run.
* **Terraform Enterprise** for building infrastructure with the DRY code method where a single code can be used for multiple deployments in different environments.
* Automated **AWS Guard Duty** for detecting malicious IP’s activity and report them to Splunk through Splunk HEC.
* Automating and Working on the migration of **WebSphere Application Servers** to **Google** **cloud** **platform** Infrastructure using **GCP** cloud Deployment Manager by Securing the **GCP** infrastructure using **Private subnets, Security groups, NACL(VPC),** etc. by managing the few other services like **Compute Engine**, **App Engine**, **Cloud Storage**, **VPC**, **Load Balancing**, **Big Query**, **Firewalls**, **Stack Driver**.
* Developed Ansible roles and playbooks for installation and configuration of Java**, Apache, MongoDB, Postgres DB, RabbitMQ, Redis, Nagios, and Splunk.**
* Worked on extracting Metrics and Logs in Splunk for **RabbitMQ** customers for troubleshooting, alerting, reporting and oversight also Implemented the message pipeline using **RabbitMQ** and **IBM WebSphere MQ** in between applications and storage.
* Setup **Docker** to automate container deployment through **Jenkins** and Deal with **Docker** **Hub**, making **Docker** **Images** and taking care of various Images essentially for middleware establishments.
* Automating the Build Infrastructure for deploying services in a dockerized environment using **Jenkins**, **SonarQube**, **Maven**, **Groovy**, **Job** **DSL**, **Docker,** and **Splunk**.
* Implemented a Continuous Delivery pipeline with **Docker**, **Jenkins,** and **GitHub**. Whenever a new Git-hub branch gets started, **Jenkins** automatically builds a new **Docker** container from it.
* Created **Kubernetes cluster** with objects like Pods, Deployments, Services, and Config Maps and created reproducible builds of the Kubernetes applications, managed **Kubernetes manifest** files, and Helm packages and implemented Kubernetes to deploy scale, load balance, scale and manage **Docker containers** with multiple namespace versions.
* Working on **Stack** **Driver** Monitoring in **GCP** to check the alerts of the applications that run on the Google Cloud Platform and deploying on **GCP** using Google Cloud Deployment Manager.
* Wrote **shell** **scripts** and automated creating projects in **Jenkins** and **Nexus repository** as part of the release process.
* Worked on integrating the **CheckMarx** in Jenkins pipeline stage which helps in identifying the **Security vulnerabilities** and issues and created checkmarxs stage in such a way to support all the Organization level applications and generating a **HTML** report and **email notification** to the respective App engineer and team and failure of build if the defined criteria is not matched.
* Managed policies and metadata of nodes, written **cookbooks**, and checked those using the **Test Kitchen** tool as well as knife and **CHEF** command-line tools in **CHEF** and focused on automation and continuous integration. Automated local development environment using **chef**
* Experience in configuring and managing **Chef master server**, upload cookbooks through **knife**, test recipes in Kitchen and other **chef tools** like Supermarket, Food critic and inspect and building workflows with **Chef Automate.**
* Integrated **maven** with **GIT** to manage and deploy project related tags and performed necessary day to day **GIT** support for different projects
* Implemented a centralized logging system using log stash configured as an **ELK** stack (**Elastic Search, Log stash, and Kibana**) to monitor **system logs, VPC Flow logs, Cloud Trail Events**, changes in S3, etc.
* Engineered **Splunk** to build, configure, and maintain heterogeneous environments and have in-depth knowledge of log analysis generated by various systems including security products.
* Developed **Python**, **Perl,** and **shell**/**bash** scripts for TC Server/**Tomcat** web application servers and automation of the build and release process and to automate certain processes for the smooth process of a build tool like **Maven**.

**Environment**: AWS, GCP, Load Balancers, Ansible, Kubernetes, Docker, Jenkins, Chef, SonarQube, Nexus Artifactory, Shell, Python, Linux, Jira, My SQL, Jenkins, Apache Tomcat 7.x, Docker, Virtualization, Kubernetes, Configured plug-ins for Apache HTTP server 2.4, Nginx, LDAP, JDK1.7, XML, SVN, Git.



**Country Financial - Bloomington, Illinois May 2015 – July 2017**

**Role: Build and Release Engineer**

***Responsibilities:***

* Created **AWS** **CloudFormation** templates to create custom sized **VPC**, subnets, EC2 instances, **ELB**, security groups. Worked on tagging standards for proper identification and ownership of **EC2** instances. and other AWS Services like **EBS, Cloud Front, cloud watch, RDS, S3, Glacier, DynamoDB, Lambda, RDS, IAM, Route53, SNS, SQS, Cloud Trail**.
* Played an important role in the implementation/deployment of a cloud-based infrastructure (Web apps, Application Service Environments, Firewalls, load balancers, storage, monitoring, security, DNS, etc.)
* **Migrated services** from a managed hosting environment to **AWS** including service design, network layout, data migration, automation, monitoring, deployments and cutover, documentation, overall plan, cost analysis, and timeline.
* Played a key role in Architect, build, and maintain Highly Available secure multi-zone **AWS** cloud infrastructure utilizing **Chef** with **AWS CloudFormation** and **Jenkins** for continuous integration.
* Build, configuration, administration, and troubleshooting of the VPC networking in a cross-domain, including VPC peering, limits, and pricing and architects within **AWS** cloud populated by infrastructure, platform, and application services that share common security and interconnection and **AWS** **Lambda** and **AWS** **config**.
* Experienced in creating custom Build &amp; Deployment automation solutions in scripting languages including **Python, Shell, UNIX shell, Ruby, Perl**. Worked and administered artifact tools including Nexus Artifactory.
* Maintained build related scripts developed in shell for **Maven** builds. Created and modified build configuration files including **POM.**
* Integrated **GIT** into **Jenkins** to automate the code check-out process. **Released code** to testing regions or staging areas according to the schedule published.
* Involved in writing **Maven** build scripts and **POM** files for generating java-based artifacts such as **JAR, WAR, EAR** and deployed **artifacts to Nexus Repository** Manager. Researched and implemented an Agile workflow for continuous integration (CI) and testing of applications using Jenkins. Administered and Engineered Jenkins to manage weekly Build.
* Used **Maven** dependency management system to deploy snapshot releases and release **artifacts to nexus** to share artifacts across the projects. Used Build tools like maven for building and deploying artifacts such as **WAR** from source code.
* Responsible for design and maintenance of the **Subversion/GIT Repositories**, views, and the access control strategies.
* Designed and implemented Subversion and **GIT metadata** including elements, labels, attributes, triggers and hyperlinks.
* Developed Test Cases for Unit Testing and Integration Testing, by using **Python Script,** which included **CAN** messages for generating Incidents.
* Worked with **application/database** team to resolve issues for performance Tuning and Management of Linux servers.
* Created, deployed, and managed **Linux** and **Windows** VM using **Red** **Hat** **Enterprise** Virtualization Manager, which includes moving and migrating VM from one cluster to another cluster or within the same cluster.

***Environment:*** Terraform, CloudFormation, Jenkins, Maven, Python, Nexus, Linux, Solaris, RHEL 6.x, Vagrant, Ant, Git, Jira, Nexus, Windows, Bash, Python, Apache2, Nginx, Network Protocols, Virtualization, BMC Remedy, Oracle HTTP Server.



**Sunera Tech, India Feb 2014 – Apr 2015**

**Role: Linux Administrator**

**Responsibilities:**

* Performed Administrative and Management tasks using shell Scripts written in **Bash**, **Python**, **C Shell** and **CRON** tab in Linux to automate the tasks.
* Administered **Linux** servers for several functions including managing **Apache/Tomcat** server, **mail** server, **MySQL** databases in both development and production.
* Dealt with daily operations, software installation, patch application, file system management, performance monitoring, and troubleshooting of alerts.
* Expertise in **UNIX** shell scripting and python scripts used to automate day to day administrative tasks. Involved in writing **Python**, **Perl,** and **Shell** scripts for compilation and deployment process.
* Hands-on experience in installation, configuration of **SSH** to enable secure access to servers, Antivirus, deployment of **VMs**, **Snapshots**, and **templates**.
* Exemplified efforts in preparing Red Hat Linux locally or over the network-kick start (**NFS, FTP, and HTTP**).

***Environment:*** Linux, Python, Ruby, Nginx, Kickstart, LVM, MySQL, Java, PowerShell, Apache, JBoss, Shell Scripting, Bash Scripting, TCP/IP, DNS, DHCP.