



UTSAV CHAUDHARY

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TECHNICAL SKILLS:

Operating Systems Windows: Linux distributions (CentOS, Ubuntu, RedHat, Debian) Programming Languages: Python, Java, .NET, C++, C#, SQL, JSON, HTML, CSS Automation and Build Tools: Ansible, Jenkins, Terraform, Puppet, Chef, ANT, Maven

Version Control Tools: GIT, GitHub, Bitbucket, GitLab, Azure Repos, AWS CodeCommit

Databases: Oracle, MongoDB, MySQL, CosmosDB, PostgreSQL, Firebase, Cassandra

Scripting: Python, Shell, PowerShell, Ruby, JavaScript, Jinja, Groovy, YAML

Methodologies: Agile, Scrum, Test-driven Approach

Tools: Azure, AWS, Docker, Kubernetes, Jira, Shell, Bash, Automation, NodeJS, jQuery, Django, Flask, XML, Nginx, Apache HTTP

SDKs: ReactNative, Unity3D, Android Studio, Arduino

PROFESSIONAL SUMMARY:

- Experienced DevOps / Cloud Engineer with 4+ years of hands-on DevOps experience specializing in Azure and AWS.
- Developed comprehensive CI/CD pipelines on Azure DevOps integrating Terraform, Bicep Templates, and ARM templates to manage Azure resources securely via Azure VPN and ExpressRoute, ensuring seamless deployment across multiple environments.
- Focused on triggers that automatically invoke build pipelines for Continuous Integration of source code changes and release pipelines for Continuous Deployment
- Utilized **Docker** for containerizing applications and managing Docker images through **Azure Container Registry** (ACR) and Amazon Elastic Container Registry (ECR), deployed on Azure AKS and AWS EKS with Horizontal Pod Autoscaler and Kubernetes Cluster Autoscaler for automated scaling and load balancing.
- · Assisted in migrating monolithic applications to a microservices architecture using Docker and Kubernetes on Azure Kubernetes Service (AKS), leveraging Azure Container Registry (ACR) for artifact management and ensuring scalability and resilience.
- · Orchestrated CI/CD pipelines using **Jenkins** for **Azure** and **AWS** environments, integrating security tools like **SonarQube**, Snyk, and OWASP ZAP for continuous monitoring and compliance, ensuring efficient software delivery and quality assurance.
- Skilled in creating and deploying artifacts for NuGet packages, Docker images, applications, Maven, and npm. Experienced in storing these artifacts using Azure Artifacts, GitHub Packages, and Docker Hub.
- Implemented infrastructure deployment and management across AWS using Terraform and AWS CloudFormation, optimizing costs with AWS Reserved Instances and Savings Plans, and integrating AWS services like Route 53 and Application Load **Balancer** for resilient application deployment.
- Proficient in using Python, Ruby, Perl, Shell, Bash, and PowerShell, for automation scripting, creating efficient and reliable scripts to automate various tasks and streamline workflows in development and operational environments.
- Implemented network policies in Azure Kubernetes Service (AKS) and Amazon EKS to control traffic flow and enforce security rules between pods and external services, ensuring secure communication and compliance with organizational security policies.
- Experienced in building testing pipelines and integrating Static Code Analysis, Load Testing, Automated Testing and **Compatibility** Testing
- Utilized Kubernetes-native tools and RBAC to manage access control and enhance network segmentation within the cluster environment.
- Streamlined data collection processes by integrating Python scripts with SQL database for efficient data storage and retrieval. Utilized pandas and NumPy for data cleaning and transformation, and employed Cron Jobs to automate regular scraping tasks, ensuring timely and accurate data updates
- Managed project workflows effectively using Agile methodologies in Azure DevOps, including sprint planning, backlog management, and retrospective meetings, ensuring alignment with project goals and timelines.

- Implemented **Azure Monitor**, Azure **Log Analytics**, Amazon **CloudWatch**, **Prometheus**, and **Grafana** for real-time monitoring, diagnostics, and advanced analytics across Azure and AWS environments, ensuring operational efficiency and proactive issue resolution.
- Developed **Azure DevOps** and **Jenkins** workflows for automated **report generation** using **Prometheus** and **Grafana**, scheduling reports to be sent automatically via **SMTP** for continuous monitoring and transparency.
- Experienced with version control systems such as **GIT**, **Subversion**, **Azure Repos**, and **AWS CodeCommit**. Skilled in building project branches, merge and release them into various environments

PROFESSIONAL EXPERIENCE:

<u>Client: TransAmerica (Remote, USA) | Azure/Cloud DevOps Engineer</u> RESPONSIBILITIES

Jan 2023 - Present

- Migrated legacy monolithic J2EE and .NET applications to **Azure Cloud** using microservices architecture, deploying them on **Kubernetes** (K8s) for improved scalability, resilience, and manageability. Created **pipelines** to **containerize** applications and used Kubernetes manifests and YAML files for efficient deployment and management on Azure Kubernetes Service (**AKS**).
- Developed **CICD Pipelines** to implement and manage Azure resources spanning multiple providers including Compute, Network, and Application Gateway, utilizing **Terraform** and **Bicep Templates**, also had experience with **ARM** templates. They established and sustained Dev, Test, UAT, and Prod environments through infrastructure as code methodologies, employing Terraform scripting and Bicep Templates.
- Utilized **Docker** to containerize applications, enabling portability and scalability across different environments. Configured Docker images to encapsulate **application code**, **dependencies**, and **configurations**, and stored them in **Azure Container Registry**, facilitating version control and artifact management.
- Assisted in deploying and managing secure Azure network architectures, including virtual networks (**VNets**) and subnets, applying **RBAC** and network security groups (**NSGs**) to control traffic and access and developed and **implemented pipelines** to automate the application of these **configurations on newly created infrastructure**.
- Assisted in writing Ansible playbooks to push out **new/confirm** the configuration of the deployed infrastructure. Defined tasks to Ansible modules for roles and playbooks and ran them on the **DevOps Pipeline** for all the hosts to be updated.
- Created testing **environments** for the development team using **Azure Container Instances**, setting up CI/CD pipelines in a **Dev** environment to allow developers to test their code and integrations seamlessly within the pipeline
- Developed and maintained custom **Python, Bash, Shell, and PowerShell** scripts to automate CI/CD pipelines, enabling seamless integration and deployment processes across Azure DevOps, enhancing build, test, and release efficiency. Using **CRON** Jobs to schedule jobs on the master node.
- Implemented **Azure Key Vault** to securely manage secrets, credentials, and configurations, ensuring data security and compliance. Integrated access to Key Vault and utilized stored credentials within the pipeline for enhanced security and seamless deployment processes.
- Utilized **Python** and **Shell** scripting to automate infrastructure provisioning and configuration with **Terraform** and **Ansible**, and orchestrated containerized applications using **Docker** and **Kubernetes**, ensuring consistent, scalable, and reliable environments.
- Utilized K8s manifests to efficiently deploy and manage Kubernetes applications on Azure Kubernetes Service (**AKS**), leveraging Docker to containerize our applications and Azure Container Registry (**ACR**) to securely store and manage Docker images.
- Integrated Docker **images** into CI/CD pipelines in Azure DevOps, **tagging artifacts** for traceability and seamless deployment to Azure Kubernetes Service (**AKS**), optimizing the software delivery lifecycle (**SDLC**).
- Integrated **SonarQube**, **Snyk**, and **Checkmarx** into the CI/CD pipeline to continuously **monitor** and improve **code quality** and security, reducing vulnerabilities and ensuring compliance.
- Integrated **unit** tests, **integration** tests, and **UI** tests with **Selenium** into the CI/CD **pipelines** using **Azure DevOps**, ensuring comprehensive testing coverage and automated report generation.
- Monitored and audited Azure environments for compliance with security policies and RBAC configurations, using tools like Azure Security Center and Azure Policy.
- Assisted in deploying **Azure Monitor** and **Azure Log Analytics** for real-time monitoring and logging of cloud resources, enhancing visibility and operational efficiency.
- Established a branching strategy using **Git** and **Azure Repos**, creating separate branches for Dev, Test, UAT, and Production environments.
- Set up **manual validation** steps in the CI/CD pipeline for critical deployments, ensuring thorough review and **approval** before **production** release.

- Integrated security tools like **OWASP ZAP** and **Veracode** into the CI/CD pipeline for continuous **security scanning** and vulnerability assessment.
- Created and maintained detailed **documentation** of migration processes, CI/CD pipeline configurations, and infrastructure setups to facilitate **knowledge transfer** and **future maintenance**.
- Followed **Agile** methodologies to measure the overall workflow of projects and attended daily **stand-up** meetings.

<u>Softline Solutions PVT. LTD. (Bangalore, IN) |Cloud DevOps Engineer</u> RESPONSIBILITIES

Jul 2020 - Jul 2022

- Designed cloud-native solutions with **AWS** services, leveraging Amazon **S3** and Amazon **RDS**. Designed event-driven architectures using serverless functions, orchestrated and managed through **Jenkins**.
- Designed and implemented CI/CD pipelines using **Jenkins**, integrating **code testing** with tools such as **pytest** and **unit** test for **Python**, and security scanning with **CodeQL**.
- Orchestrated infrastructure **deployment** using both **Terraform** and AWS **CloudFormation** templates, ensuring infrastructure as code principles and efficient resource management.
- Used **Staged Deployment** strategy, initially deploying applications across two separate pools of servers for resilience and testing purposes. Incorporated Amazon **CloudWatch**, **Prometheus**, and **Grafana** for real-time monitoring, diagnostics, advanced analytics, and visualization.
- Assisted in implementing a network traffic splitting mechanism using **AWS Route 53** and **AWS Application Load Balancer** (ALB), directing users to specific application versions based on predefined rules.
- Managed application deployment to different server pools based on **manual validation** and monitoring insights, utilizing **Jenkins** for change management in different environments.
- Created and configured **HTTP** triggers in **AWS Lambda**, enabling Prometheus and Grafana for monitoring, debugging, and performing load testing on the applications. Used **Python API** for uploading all the agent logs into **Amazon S3**, with automation through **Jenkins**.
- Hosted private Git repositories for source code control. Developed **build workflows**, additionally utilizing **Jenkins** to enhance automation capabilities, enabling **parallel workflows**, and integrating seamlessly with repositories.
- Containerized applications using **Docker**, stored images in **Amazon Elastic Container Registry** (ECR) and deployed them on **Amazon Elastic Kubernetes Service** (EKS) for container **orchestration**.
- Configured EKS with **Horizontal Pod** Autoscaler and **Kubernetes Cluster Autoscaler** for automated load balancing and scalability, ensuring optimal performance under varying loads.
- Implemented **AWS Secrets Manager** to manage secrets and credentials, enforced network policies, and enabled role-based access control (**RBAC**) within the Kubernetes environment to ensure security.
- Created and managed the organization's infrastructure within AWS using **Terraform** and **Ansible**, automating deployment processes with **Jenkins**.
- Assisted in Ansible **playbooks** and roles, following best practices to utilize Ansible handlers with multiple tasks to **trigger various handlers** and to decouple handlers from their names.
- Involved in daily **stand-up** meetings, sprint **backlog**, and sprint **retrospective** for the Agile Scrum process, using **Jira** for project tracking and management.

Compendious Medialabs Pvt. Ltd. (Mumbai, IN) | Ansible/Cloud Engineer (Intern) RESPONSIBILITIES

Dec 2019 - June 2020

- Developed custom Ansible Modules in Python to enhance functionality and automate tasks within the infrastructure.
- · Worked on in-line script automation for Ansible and Terraform, using Bash, Python, Shell, and Powershell.
- Developed and maintained scripts to automate repetitive tasks, enhancing productivity and efficiency across the team using Python, Bash, and PowerShell.
- Used **Ansible** to automate **Configuration Management** tasks, ensuring **consistency**, **repeatability**, and avoiding **configuration drift** across environments.
- · Collaborated with fellow DevOps engineers to support the development and maintenance of CI/CD pipelines.
- Tested **Jenkins** for CI and automated scheduled data **scraping** and **uploading** to databases, ensuring **timely** and **accurate data** updates.
- Assisted in the deployment and monitoring of automated solutions, **ensuring smooth** operation and **quick issue** resolution.
- ▶ Knowledge and hands-on experience with popular **DevOps tools** such as Docker, Kubernetes, Jenkins, Ansible, and Terraform.
- Experience with Infrastructure as Code (IaC) tools, particularly **Azure Resource Manager** (ARM) templates and **Terraform and Ansible** for automating **configuration management** and **deployment tasks**.

- Strong **communication skills** for effective interaction with various stakeholders, including developers, operations teams, and management.
- Gained experience in **critical thinking** and **problem-solving** abilities, essential for **troubleshooting** issues and **optimizing** processes.

Compendious Medialabs Pvt. Ltd. (Mumbai, IN) | Python Engineer (Intern)

RESPONSIBILITIES

May 2019 - Dec 2019

- Developed **Python scripts** to automate tasks using APIs, including creation and utilization, and implemented **web scraping** and **testing** with **Selenium**.
- Utilized Python libraries such as requests for efficient handling of HTTP requests for data collection.
- Used libraries like Pandas, and NumPy for sorting and filtering data and used Databases for storing, and retrieving data.
- Leveraged Redis for caching and optimizing data retrieval processes, enhancing system performance and efficiency.
- Integrated **RSS** feed handling into Python scripts, enabling streamlined data processing and utilization for various applications.
- Utilized **Azure services** for **virtual machines**, **databases**, and other **infrastructure** requirements, ensuring scalable and reliable automation solutions.
- Implemented end-to-end automation workflows, ensuring seamless execution of tasks from data acquisition to storage and processing.
- Contributed to the development of **internal tools** to streamline **repetitive tasks**, **increasing** team **productivity** and **efficiency**.

EDUCATION:

Binghamton University (SUNY)
Master of Science in Computer Science

Universal College of Engineering *Bachelor's in Computer Engineering*

Aug 2022 - Dec 2023 GPA: 3.44/4

Jul 2016 - Jun 2020 GPA: 8.09/10