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
Databases :	Oracle, MongoDB, MySQL, CosmosDB, PostgreSQL, Firebase, Cassandra
Scripting :	Python, Shell, PowerShell, Ruby, JavaScript, Jinja, Groovy, YAML
Methodologies :	Agile, Scrum, Test-driven Approach
Tools :	Docker, Kubernetes, Jira, Shell, Bash, Automation, NodeJS, jQuery, Django, Flask, XML, Nginx, Apache HTTP, TomCat
SDKs :	ReactNative, Unity3D, Android Studio, Arduino

PROFESSIONAL SUMMARY :

‣ Experienced DevOps / Cloud Engineer with **6 years** of hands-on experience specializing in **Azure.** Have relevant experience with Automation, Python Scripting, and Machine Learning.

‣ Created and managed Azure ML workspaces to organize and streamline machine learning projects, experiments, and datasets

‣ Experience with **building Azure DevOps CI/CD Workflows and Github Action Workflows** to automate **Creation** and **Configuration** of **Azure Resources** using **Bicep templates**, **Terraform** scripts and **Azure Resource Manager (ARM)** in **all environments** for **creating** Resource Groups, Virtual Networks, Subnets, Virtual Machines, Blob Storage, Azure Active Directory, Azure AD Connect, **Application Gateway and Azure Boards, Azure Test Plan** resources

‣ Focused on **triggers** that automatically invoke build pipelines for **Continuous Integration** of source code changes and release pipelines for **Continuous Deployment**

‣ Developed and orchestrated end-to-end **ML pipelines**, automating data **preprocessing**, **model training**, **evaluation**, and **deployment** processes.

‣ Proficient in using **PowerShell, and Bash** for **automation scripting**, creating efficient and reliable scripts to **automate** various tasks and **streamline** workflows in both **development** and **operational** environments.

‣ Expertise in defining **Azure Pipelines and GitHub Actions** workflows for **provisioning** application **resources**, managing **secrets** and **environment variables** securely, and orchestrating complex deployment pipelines. Utilized **Azure Key Vault, HashiCorp Vault, Terraform, Ansible, Docker, and Kubernetes** for seamless infrastructure **management** and **deployment** automation

‣ 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**. Streamline **Build Process** to ensure robust **version control** and **traceability** across diverse development environments

‣ Experienced in building testing pipeline and integrating **Static Code Analysis, Load Testing, Automated Testing and Compatibility Testing**

‣ Worked on **monitoring** and **optimizing** Azure Pipelines and GitHub Actions **workflows** for performance, resource utilization, and cost efficiency, utilizing built-in metrics and logging feature with **Marketplace integrations**

‣ Proficient in invoking **HTTP trigger** functions with HTTP request and build serverless APIs. Worked with **Postman API** testing tool to call HTTP triggers and performed load testing on the applications using Azure DevOps Services

‣ Skilled in integrating **Azure DevOps** with **Docker containers** using Azure pipelines to orchestrate **microservices** builds and deployments to **Azure Kubernetes Service** (AKS)

‣ 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

‣ Designed and implemented **web scraper**s using **Selenium** to extract and process large volumes of data from various **dynamic** and **static websites**. Ensured robustness by incorporating **error handling, retries, and logging mechanisms** to manage network issues and **site structure changes** effectively

‣ Proficient in leveraging reusable **Terraform templates/modules** for provisioning and managing Azure infrastructure as code (IaC) to establish **Dev, Test, UAT, and production** environments through **configuration** files. Utilized **Azure Storage** to store **Terraform state** files, ensuring comprehensive tracking of all environment changes

‣ Experienced with version control systems such as **GIT, Subversion, Azure Repos**. Utilized GitBash tool to clone the private and public repositories. Skilled in building project branches, merge and release them into various environments

‣ Experience in scripting languages like **Python, Ruby, Perl, Shell, Bash** and familiar with **storage, Networking, PowerShell** commands. Experienced in creating automated **PowerShell** Scripts for **web-app deployment**

‣ Experience in working with **Agile** methodologies and **Scrum** practices. Handled daily stand-up calls to measure the team performance and manage the work.

PROFESSIONAL EXPERIENCE:

Client: TransAmerica (Remote, USA) | Azure/ML DevOps Engineer

RESPONSIBILITIES   Jan 2023 - Present

‣ **Developed** CI/CD **Pipelines** for Hosting **internal** applications on **Azure DevOps** while maintaining **critical data on-premises**, leveraging **hybrid** connectivity solutions such as **Azure VPN and ExpressRoute** to securely access on-premises data through Azure services.

‣ Assisted **ML team** in streamlining their **workloads** on Azure **Cloud**, optimizing computing resources and ensuring seamless integration with **Azure services**.

‣ Leveraged **Docker** to containerize **ML models** and **applications**, deployed and managed Kubernetes clusters (**AKS**) to orchestrate **containerized ML applications**, ensuring high availability and scalability.

‣ Implemented and managed Azure resources spanning multiple providers including **Compute**, **Network**, and **Application Gateway**, utilizing **Terraform** and **Bicep Templates**, also had experience with **ARM** templates. Established and sustained **Dev, Test, UAT, and Prod** environments through infrastructure as code methodologies, employing **Terraform scripting** and **Bicep Templates**.

‣ Assisted in creating and managing secure **Azure network architectures**, including virtual networks (VNets) and subnets, applying RBAC and network security groups (**NSGs**) to **control traffic and access**. Developed and implemented **pipelines** to **automate** the application of these **configurations** on **newly created infrastructure**

‣ Involved in implementing Azure Role-Based Access Control (**RBAC**) to manage and restrict **access to resources**, ensuring that users and applications had the minimum necessary permissions.

‣ Involved in writing **Ansible playbooks** to push out **new/confirm** configuration of the deployed **infrastructure**. Defined tasks to Ansible modules for roles and playbooks and **run** it on **DevOps Pipeline** for all the **hosts** to be updated.

‣ 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.

‣ 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**. Apache

‣ **Monitored** and audited Azure environments for compliance with **security policies** and **RBAC** configurations, using tools like Azure Security Center and Azure Policy. Nginx

‣ 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**.

‣ **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**.

‣ Utilized **Helm** charts 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 **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**.

‣ Involved in **Designing, Configuring and Deploying** Azure Virtual Networks **VNets**, Subnets, Service and Private Endpoints, DNS Servers, Address space, Security Policies Tomcat and VNet Peering's using **Terraform**.+

‣ Assisted in deploying Azure **Monitor** and Azure **Log Analytics** for real-time **monitoring and logging** of cloud resources, enhancing visibility and operational efficiency.

‣ 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.

‣ 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.

Softline Solutions PVT. LTD. (Bangalore, IN) |Cloud DevOps Engineer

RESPONSIBILITIES   Jul 2020 - Jul 2022

‣ Designed cloud native solutions with **Azure** services leveraging **Azure storage, Azure SQL.** Designed **event-driven** architectures using serverless **functions**, orchestrated and managed through **GitHub Actions**.

‣ Designed and implemented **CI/CD pipelines** using **GitHub Actions**, integrating **code testing** with tools such as **pytest** and **unittest** for **Python**, and security **scanning** with **CodeQL**.

‣ Orchestrated **infrastructure deployment** using both **Terraform** and **Bicep 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 **Azure Monitor** for real-time **monitoring and diagnostics**, along with **Prometheus** and **Grafana** for advanced **analytics and visualization**.

‣ Assisted in **Network Traffic** splitting mechanism using **Azure Traffic Manager** and **Azure Application Gateway**, **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 Azure DevOps for **change management** in different **Environments**.

‣ Created and configured **HTTP Triggers** in Azure Functions enabling **Application Insights** for monitoring, debugging, and performing **load testing** on the applications using **Python API** for uploading all the agent logs into **Blob Storage**, with automation through GitHub Actions.

‣ Hosted private Git repositories for source code control. Developed build workflows, additionally utilizing **GitHub Actions** to **enhance automation** capabilities, **enabling parallel** workflows, and **integrating seamlessly** with repositories.

‣ **Containerized** applications using **Docker**, storing images in **Azure Container Registry** (ACR), and deployed them on **Azure Kubernetes Service** (AKS) for container **orchestration**.

‣ Configured AKS with **Horizontal Pod Autoscaler** and **Kubernetes Cluster Autoscaler** for automated **load balancing** and scalability, ensuring **optimal performance** under **varying loads**.

‣ To ensure security, we implemented **Azure Key Vault** to manage secrets and credentials, enforced network policies, and enabled role-based access control (**RBAC**) within our Kubernetes environment.

‣ **Created and managed** organization's infrastructure within Azure using **Terraform** and **Ansible**, automated **deployment** processes with **GitHub Actions**.

‣ Optimized hosting costs by leveraging **Azure Reserved Instances** and Azure Hybrid Benefit, maximizing utilization of Azure services while minimizing expenses.

‣ Wrote **Ansible playbooks**, Roles and followed **best practices** to utilize **Ansible Handlers** with multiple tasks to **trigger** various **handlers** and to decouple handlers from their names.

‣ Worked on a **Proof of Concept** (POC) initiative focused on **modernizing CI/CD** processes, leveraging **GitHub Actions Pipelines** and **Tekton** to streamline software **delivery workflows**. Implemented and fine-tuned **automation pipelines**, integrating advanced features to enhance **efficiency, scalability, and reliability** across the **development lifecycle**.

‣ Involve in daily **stand-up** meetings, sprint **backlog** and sprint **retrospective** for Agile **Scrum** Process.

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

RESPONSIBILITIES   June 2019 - June 2020

‣ Developed custom **Ansible Modules** in **Python** to enhance functionality and automate tasks within the infrastructure.

‣ Worked on in-line scripts 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 2018 - May 2019

‣ Worked on a project that **translates** and augments Sign Language using **Machine Learning** and **Augmented Reality**.

‣ Employed **MobileNet V2** as a transfer learning **model**, and it was hyper tuned to meet the needs.

‣ Designed the model using the algorithms that**TensorFlow Lite** showed promising results with **28mAP** and is used by developers to integrate with Augmented Reality.

‣ Developed an android application for preschoolers with cognitive challenges, hearing and speaking aid

‣ Implemented Augmented Reality along with **Deep Learning models** i.e., **Convolutional Neural Network CNN** with 95% accuracy & I**mage Processing**
using TensorFlow & Keras, integrated Google Vision API for Handwriting Analysis, assisted with Sign Language.

‣ Awarded as Innovative Idea during the internal presentation in 2020.

‣ Authored and published a paper in the international journal IOSRJEN in May 2021, V11 ~ I5 ~ S1, E-ISSN: 2250-3021

EDUCATION:

Binghamton University (SUNY)   **Aug 2022 - Dec 2023**
Master of Science in Computer Science   **GPA: 3.44/4**

Universal College of Engineering   **Jul 2015 - Jun 2019**
Bachelor's in Computer Engineering   **GPA: 8.09/10**