

ASHUTOSH KUMAR SAH

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Prolific in learning and using DevOps, Cloud Computing & MLOps to solve industry-specific problems by integrating as well as automating these technologies. With 4 years of dedicated experience in DevOps, I am poised to leverage my skills, competency, and leadership abilities to drive mutual growth for both the organization and myself. Passionate about staying abreast of industry trends and committed to continuous learning and professional development.

SKILLS

- Cloud (AWS, Azure, GCP)
- Docker
- Kubernetes, Helm Charts
- CI : Git, GitHub, GitLab, Bitbucket
- CD : Jenkins, ArgoCD
- Python
- Terraform
- CloudFormation
- Shell Scripting
- Ansible
- Linux , Windows
- Prometheus and Grafana
- Attention to details
- Communication Skills
- Problem-Solving

EDUCATION

Birla Institute of Technology, Mesra

2018 - 2021

Master of Computer Application (MCA)

EXPERIENCE

DevOps Engineer / Kredifi Software Pvt. Ltd.

MAY 2023 – PRESENT

- **Architectural Migration:** Led the migration of Rancher and Kong to Portainer and Traefik, optimizing infrastructure efficiency and enhancing user accessibility. Managed the entire migration process, ensuring seamless integration and minimal service disruption.
- **Cloud Infrastructure Management:** Managed AWS infrastructure, implementing resource optimization strategies to increase scalability. Utilized automation tools like AWS CloudFormation and Terraform to dynamically scale resources, reducing costs while maintaining high performance and reliability in multi-region.
- **Continuous Integration/Continuous Deployment (CI/CD) Automation:** Automated CI/CD pipelines using GitLab and Jenkins, reducing deployment cycles. Implemented automation for testing, building, and deployment stages, ensuring faster and more reliable releases.
- **Container Orchestration with Kubernetes:** Implemented Kubernetes with ArgoCD for continuous deployment, improving resource allocation and scaling efficiency. Used Helm Chart for making deployment easy and dynamic for better re-usable deployment, services and other manifests of Kubernetes.
- **Proactive Monitoring and Troubleshooting:** Implemented comprehensive monitoring solutions using Prometheus, Grafana, and the ELK stack (Elasticsearch, Logstash, Kibana) to proactively track system health and performance metrics. Reduced downtime and improved system reliability through early issue identification and resolution.
- **Implemented Git Push Verification Script:** Developed a Shell script to enforce the inclusion of a ticket number and related comment in Git pushes, improving code change tracking accuracy and enhancing project management and collaboration.
- **AWS Security Services and Compliance:** Ensured security and compliance by integrating AWS services related to security like VPC, Subnets, IP-CIDRs, VPN, Web Application Firewall, NAT-gateway, Route 53, KMS, and LoadBalancers. Followed industry best practices to maintain a secure and efficient cloud environment.

DevOps Engineer / Teqfocus Solutions Pvt. Ltd.

FEBRUARY 2021 – MAY 2023

- **Ansible for Infrastructure Automation:** Collaborated with Ansible to automate the provisioning of diverse infrastructure components, including virtualized hosts, hypervisors, network devices, and bare metal servers, reducing provisioning time by 50%. Ensured rapid and consistent deployment through efficient automation processes.
- **CI/CD Pipeline Optimization:** Orchestrated CI/CD pipelines using Jenkins, Docker, and Kubernetes, reducing deployment time. Streamlined Flask application deployments by designing and executing workflows for seamless integration, testing, and deployment across multiple environments.
- **AWS CloudFormation for Automated Pipelines:** Created AWS CloudFormation stacks to establish end-to-end automated pipelines, integrating ECS-Fargate, ECR, CodeCommit, CodeBuild, and CodeDeploy. Improved deployment consistency and reliability through best infrastructure as code (IaC) practices.
- **Monitoring and Log Analysis:** Implemented monitoring, log analysis, and visualization solutions using Prometheus & Grafana, and the ELK stack, significantly reducing system downtime. Designed and deployed comprehensive architectures for proactive issue identification, log correlation, and enhanced system performance monitoring.
- **PowerShell Automation for Windows SQL Servers:** Utilized PowerShell scripting for automated installation and configuration of Windows SQL servers, reducing deployment time and ensuring adherence to organizational standards.
- **Container Orchestration Expertise:** Deployed multiple apps and micro-services using AWS, EKS, ECS Fargate, and Helm-charts optimizing resource utilization, reusability and enhancing application availability and scalability.
- **Shell Script Automation:** Developed Shell scripts for automating AWS Glue integration with Salesforce, improving data synchronization efficiency and reducing manual effort.
- **AWS Security Services Implementation:** Integrated security using AWS WAF, Route 53 DNS Firewall, KMS, and other AWS security tools to safeguard infrastructure and data. Ensured industry-standard best practices for security and compliance, enhancing overall system resilience and security posture.
- **Compliance and Best Practices:** Maintained compliance with industry standards and regulatory requirements by implementing robust security measures across all AWS services. Ensured best practices were followed for secure, efficient, and reliable infrastructure management.

Intern / LinuxWorld Informatics Pvt. Ltd.

March 2020 – JAN 2021

- Automated and maintained applications on Linux-based servers using AWS, Docker, and Jenkins.
- Implemented a Python-based application on a multi-cloud infrastructure to streamline the allocation and configuration of high server traffic resources.
- Developed CI/CD pipelines for flask web applications using Jenkins, Docker, and Kubernetes.
- Spearheaded MLOps-based projects, implementing a Jenkins pipeline for automatic training and hyperparameter modification of ML-based models.
- Deployed various Docker applications on AWS.

PROJECTS

KREDIFI.....

Project Name: Kredifi Platform

Description: Established a dedicated platform to conduct comprehensive testing and configuration changes, ensuring the stability and reliability of production systems. By isolating development activities from the production environment, risks of disruptions or downtime were mitigated, enhancing overall system resilience and performance.

Environment: Azure Cloud

Responsibility:

- Configured virtual machines, creating a dedicated test environment and reducing testing-related downtime.
- Created shell scripts and Powershell scripts to automate backups and other cron jobs.
- Implemented a **Rancher** Server for centralized management of containerized applications, improving deployment efficiency.
- Provisioned two java application servers, improving hosting efficiency and service reliability.

- Installed a java app server, enhancing web traffic handling efficiency and reducing response time.
- Deployed RabbitMQ as a messaging broker, enhancing asynchronous communication efficiency within the application by 35%.
- Established a Redis database instance, and Security and compliance by integrating AWS security services like WAF, Route 53, DNS, KMS, and Firewall, Followed industry best practices.

TEQFOCUS.....

Project Name: Hobsons Starfish

Description: Hobsons is a London-based project which is focused on DevOps which enables the user to access a different kind of sandbox experience for database and infrastructure offered by Hobsons, mostly used technology is Kubernetes, Terraform, EKS, ECS, ECR, Amazon RDS, and MySQL.

Environment: AWS

Responsibility:

- Set up Workflow and Workflow Approval processing, streamlining project management and reducing approval times.
- Developed and deployed a Flask app using Docker and Kubernetes, improving app scalability.
- Enhanced the Flask app's scalability, reliability, and performance by 35% through the use of Docker containers and Kubernetes clusters.
- Received positive client feedback for delivering the project on time and within budget, specifically praising the improved performance and reliability
- Configured infrastructure using EKS, ECS, ECR, and AWS developer tools (CodeCommit, CodeBuild, CodeDeploy), enhancing deployment efficiency
- Used Terraform for creating various AWS resources, streamlining infrastructure management and reducing setup time.
- Used Security and compliance by integrating AWS services like WAF, Route 53, DNS, KMS, and Firewall. Followed industry best practices
- Created users, roles, and public groups, and implemented role hierarchies, sharing rules, and record-level permissions, improving user access management and security.
- Utilized Amazon RDS, SQL, and MySQL for data manipulation, enhancing application performance and data processing speed.

Project Name: AWS Data Manager For Salesforce

Description: It was a Teqfocus Internal Project for getting Data from salesforce and saving it to Aws S3. We are integrating Salesforce and AWS services for the migration of data and use it for visualization in AWS Quicksight, or any other visualization tool like PowerBi, or Tableau.

Environment: AWS, Salesforce

Responsibility:

- Planned and implemented data strategy for migration, backup, and recovery for Salesforce instance, reducing data transfer times.
- Wrote python Boto3 lambda scripts for AWS-Glue & Scala script to login and gathering required table data from salesforce account.
- Designed data migration pipelines for continuous and incremental ingestion, improving data accuracy. responsible for Extracting , transforming and loading (ETL) data to s3 bucket.
- Automated process of data from S3 to being visualized as dashboards in Quicksight.
- Implemented serverless and automated backup and recovery processes, improving data recovery speed.
- Enabled ready-to-run analytics using Athena, Redshift Spectrum, or EMR, reducing analytics setup time.
- Implemented data visualization solutions through AWS Quicksight, PowerBI, and Tableau.
- Provided end-to-end support for complete data lifecycle solutions, improving data management efficiency.

CERTIFICATIONS & ACHIEVEMENTS

- **Microsoft Certified Azure Fundamentals (AZ-900) : 2022**
- **Microsoft Certified Azure AI Fundamentals (AI-900) : 2022**
- **Microsoft Certified Azure data Fundamentals (DP-900) :2022**
- **Oracle Cloud Infrastructure 2022 Certified Foundation Associate (1Z0-1085-22)**
- **Aviatrix Certified Engineer – Multi-Cloud Networking Associate: 2022**