Mahesh Srinivasan

DevOps Engineer | Cloud & Automation Specialist

Kanchipuram, Tamil Nadu, India

Portfolio: mahesh-vulnsecure.github.io/portfolio/

Summary

Results-driven DevOps Engineer with 3+ years of expertise in cloud infrastructure, automation, and system optimization. Proven track record of designing scalable, secure, and high-performance environments. Adept at implementing CI/CD pipelines, infrastructure as code, and containerization to streamline workflows and reduce operational costs.

Professional Experience

Nura Analytix LLP (Datacrew.ai)

DevOps Engineer | Sep 2024 - Mar 2025 | Chennai, India

- Architect and automate cloud infrastructure (AWS/Azure/GCP) for high-availability applications.
- Design CI/CD pipelines to accelerate software delivery and ensure zero-downtime deployments.
- Implement infrastructure as code (Terraform/Ansible) to streamline provisioning.
- Deploy and manage containerized applications using Docker/Kubernetes.
- Strengthen security posture via IAM policies, VAPT, and compliance audits.

Contus Tech Pvt Ltd

System Engineer | Oct 2022 - Mar 2024 | Chennai, India

- Manage and monitor all installed systems and infrastructure
- Install, configure, test and maintain operating systems, application software and system management tools
- Proactively ensure the highest levels of systems and infrastructure availability
- Monitor and test application performance for potential bottlenecks, identify possible solutions, and work with developers to implement those fixes
- Maintain security, backup, and redundancy strategies
- Write and maintain custom scripts to increase system efficiency and lower the human intervention time on any tasks
- Participate in the design of information and operational support systems
- Provide 2nd and 3rd level support Liaise with vendors and other IT personnel for problem resolution

Lcube Innovative Solutions Pvt Ltd

System Administrator | Dec 2021 - Oct 2022 | Kanchipuram, India

- Install and configure software and hardware.
- Manage network servers and technology tools.
- Set up accounts and workstations.
- Monitor performance and maintain systems according to requirements.
- Troubleshoot issues and outages.
- Ensure security through access controls, backups and firewalls.

Key Projects

Automated CI/CD Pipeline for GCP

- Designed and implemented a Jenkins-based CI/CD pipeline on Google Cloud Platform (GCP) to automate build, test, and deployment processes.
- Integrated with Google Container Registry (GCR) for storing and managing Docker images.
- Deployed microservices to Google Cloud Run and Compute Engine for scalable, containerized applications.
- Enabled **webhook triggers** from Git (GitHub/GitLab/Bitbucket) to automatically initiate Jenkins builds on code commits.

- Configured automated testing and linting stages to ensure code quality before deployment.
- Leveraged Cloud Build and GCR for secure, fast, and repeatable image builds.
- Implemented **auto-scaling** on Cloud Run and **health checks** to maintain service reliability under load.
- Built in automated rollback mechanism using Jenkins pipelines and Cloud Run revisions for safe deployments.
- Reduced deployment time from **hours to minutes**, increasing release frequency and system resilience.

Tableau Server for Banking Analytics

- Deployed and configured Tableau Server in a secure environment for enterprise-wide banking analytics.
- Implemented Role-Based Access Control (RBAC) to manage user permissions and restrict access to sensitive financial dashboards.
- Ensured data governance and compliance with banking regulations (e.g., PCI DSS, GDPR, SOX) by enforcing data access policies and audit trails.
- Integrated Tableau Server with Active Directory/LDAP for centralized authentication and user group mapping.
- Published and maintained interactive dashboards for real-time insights across departments (e.g., credit risk, loan performance, fraud detection).
- Connected Tableau to various data sources including Oracle DB, SQL Server.
- Set up automated data refresh schedules and incremental extracts for optimized performance and up-to-date reporting.
- Configured **SSL/TLS encryption**, backups, and monitoring for high availability and disaster recovery.
- Collaborated with business analysts and compliance teams to standardize KPIs and **data definitions** for trustworthy analytics.
- Enabled **auditing and logging** of user activity for transparency and compliance tracking.

ETL Application for Salesforce-Bank Integration

- Set up and configured Red Hat Enterprise Linux (RHEL) server to host a
 Python-based ETL tool for syncing data between Salesforce and internal
 banking databases.
- Installed and managed all necessary **Python dependencies** and system packages using pip, yum, and virtual environments.
- Configured web server (Nginx) as a reverse proxy for the application, optimizing for performance and security.
- Implemented SSL/TLS encryption using self-signed.

- Configured local DNS and hostname resolution to support internal routing and service discoverability.
- Applied system hardening best practices, including firewall rules, SELinux policies, and user permissions for secure deployment.
- Created systemd service units to ensure the Python ETL application runs as a persistent background service with auto-restart capabilities.
- Worked closely with application developers to ensure infrastructure compatibility and deployment readiness.
- Provided ongoing support for server monitoring, log management, and periodic patching for OS and dependencies.

Talend Server on AWS

- Deployed Windows Server EC2 instance on AWS to host Talend Server and Talend Studio.
- Installed and configured Talend Studio and Talend Administration Center (TAC) for centralized job management.
- Integrated with Oracle Database via JDBC for scalable, secure data connectivity.
- Developed and deployed ETL workflows for data extraction, transformation, and loading from Oracle to AWS.
- Implemented **Talend JobServer** and **Remote Engine** for remote execution and scheduling of jobs.
- Used **Talend context variables** and encrypted credentials for secure environment-specific configurations.
- Scheduled and monitored jobs using **TAC**, with real-time tracking via **Talend Activity Monitoring Console**.
- Connected to AWS S3 for data storage, and managed AWS access with IAM roles and policies.
- Monitored server performance and job logs using CloudWatch and Windows native tools.
- Secured RDP access and configured user roles/permissions in Talend for collaborative development.

EMR Cluster and Studio on AWS

- **Provisioned EMR Cluster** on AWS with appropriate instance types for big data processing.
- Configured applications like Apache Spark, Hive, and Hadoop for distributed data processing.
- Enabled auto-scaling and step execution for optimized resource usage and job management.

- Integrated **Amazon S3** for input/output data storage.
- Set up EMR Studio for interactive development with managed Jupyter notebooks.
- Linked EMR Studio to the cluster using **IAM roles**, **VPC**, and **security groups** for secure connectivity.
- Used **Spark on EMR Studio** to run exploratory data analysis (EDA), data transformation, and ML workflows.
- Implemented **data ingestion** pipelines from S3 and analyzed large datasets using PySpark.
- Monitored cluster performance using CloudWatch and Ganglia.
- Ensured secure access via IAM policies, Service Roles, and authentication setup with AWS SSO or IAM Identity Center.
- Implemented data ingestion pipelines from S3 and analyzed large datasets using PySpark.
- Monitored cluster performance using CloudWatch.
- Ensured secure access via IAM policies, Service Roles, and authentication setup with IAM Identity Center.

Education

CSC Diploma • Computer Applications • 2018 - 2019

LICENSES & CERTIFICATIONS

- DevOps Foundations LinkedIn Issued Apr 2025
- Introduction to Cybersecurity Cisco Networking Academy Issued Mar 2022
- Python(Basic) HackerRank Issued May 2021

Technical Skills

Cloud Platforms: AWS, Azure, GCP · CI/CD Pipelines: Jenkins, GitHub Actions,

GitLab CI/CD • Infrastructure as Code: Terraform, Ansible, CloudFormation •

Scripting & Automation: Python, Bash . Containerization & Orchestration: Docker,

Kubernetes • Monitoring & Logging: Prometheus, Grafana, ELK Stack • Security &

Compliance: IAM, Security Groups, Vulnerability Scanning