# Maddula Venkateswarlu

## Devops / Cloud engineer



4843209250

vm4537145@gmail.com

Proactive DevOps/Cloud Engineer with around 6 years of expertise in designing, automating, and managing large-scale cloud infrastructures across AWS, Azure, and GCP. Experienced in building secure and scalable CI/CD pipelines, managing container orchestration with Kubernetes and Docker and implementing infrastructure as code with Terraform.

## PROFILE SUMMARY:

- DevOps/Cloud Engineer with 6 years of experience in designing, automating, and managing scalable infrastruc across **AWS, Azure, and GCP**, ensuring high availability, performance, and cost optimization for enterprise applications.
- Proficient in implementing **CI/CD pipelines** using **Jenkins, GitHub Actions, GitLab CI/CD, Azure DevOps, and AWS Code Pipeline**, streamlining software delivery, automated testing, and deployment in Agile environments.
- Expertise in **Infrastructure as Code (IaC)** with **Terraform and CloudFormation**, enabling automated provisioning, configuration, and management of **multi-cloud infrastructure** with improved efficiency and reliability.
- Skilled in deploying and orchestrating containerized applications using **Docker, Kubernetes, Amazon EKS, and Helm**, ensuring scalability, fault tolerance, and resilience of distributed systems.
- Hands-on experience with **serverless computing** leveraging **AWS Lambda, Azure Functions,** and event-driven frameworks**,** building cost-effective, event-driven architectures that reduce operational overhead.
- Strong background in networking concepts such as **TCP/IP, DNS, VPNs, firewalls, and load balancers**, ensuring **secure,** reliable, and optimized network connectivity across cloud and hybrid environments.
- Proficient in automation and scripting using **Python, Bash, PowerShell, Ruby, and Perl**, streamlining manual processes, reducing errors, and improving operational workflows**.**
- Extensive experience with monitoring and logging tools including **Splunk, Grafana, Prometheus, Nagios, CloudWatch, Azure Monitor, and ELK Stack**, ensuring system uptime, security, and performance visibility**.**
- Skilled in managing relational and NoSQL databases such as **MySQL, PostgreSQL, Oracle, MongoDB, Cassandra, and DynamoDB**, focusing on data optimization, high availability, and reliability**.**
- Expertise in configuration management using **Ansible, Chef, and Puppet**, enabling consistent infrastructure provisioning, automated patching, and system compliance in fast-paced Agile DevOps environments.

## TECHNICAL SKILLS:

**Cloud Platforms**: AWS, Azure, GCP, Oracle Cloud
**CI/CD Tools**: Jenkins, GitLab, CI/CD, CircleCI, Azure
**Version Control**: Git, GitHub, GitLab, Bitbucket
**Containerization & Orchestration:** Docker, Kubernetes.
**Infrastructure as Code (IaC)**: Terraform, CloudFormation, Ansible, Chef, Puppet
**Automation**: Ansible, Chef, Salt Stack, Python, Bash/Shell ,Go
**Monitoring & Logging**: Prometheus, Grafana, Splunk, ELK Stack (Elasticsearch, Logstash, Kibana), Datadog, New Relic, CloudWatch.
**Networking**: VPC, Subnets, Load Balancers, NAT Gateway, DNS, VPN, Firewalls, TLS/SSL

**Serverless Computing**: AWS Lambda, Azure Functions, Google Cloud Functions.
**Container Registries**: Docker Hub, Amazon ECR, Azure Container Registry.
**Databases**: RDS, DynamoDB, MongoDB, MySQL, PostgreSQL.
**API Management**: AWS API Gateway, Azure API Management
**DevSecOps**: Snyk, Aqua OWASP Security, Twist lock,
**Build Tools**: Maven, Gradle, Ant
**Testing Tools**: Selenium, JUnit, TestNG, JUnit,

## WORK EXPERIENCE:

### Alcoa| Pittsburgh, Pennsylvania, USA |AZURE Devops Engineer| March 2025 – Present

Alcoa Corporation is a global leader in the production of bauxite, alumina, and aluminum company. Responsibility is to establish and maintain automated pipelines for continuous integration and continuous delivery (CI/CD) of software and infrastructure changes and automating tasks like code builds, testing, deployments, and infrastructure provisioning, enabling faster.

## Responsibilities:

- Designed and implemented **CI/CD pipelines** using **Azure DevOps** to automate build, test, and deployment processes for Alcoa's production management applications, improving release efficiency and reducing system downtime.
- Deployed and managed containerized applications with **Docker** and **Kubernetes**, ensuring scalability and high availability of aluminum supply chain and production monitoring systems.
- Integrated **Jenkins**, **Maven**, and **Nexus** into DevOps workflows, accelerating development cycles and ensuring error-free deployments across operational platforms and automated infrastructure provisioning with **Terraform** and **Azure Resource Manager (ARM) templates**, enabling consistent, repeatable, and scalable cloud infrastructure for global operations.
- Developed automation scripts using **Python**, **Shell**, and **PowerShell** to streamline reporting, equipment performance monitoring, and logistics management workflows.
- Implemented security and quality checks with **SonarQube**, **Azure Security Center**, and **Snyk**, ensuring compliance with industry standards and eliminating vulnerabilities during deployment.
- Managed and optimized **Azure Functions**, **Azure Kubernetes Service (AKS)**, and **Azure Virtual Machines** to host scalable production APIs, logistics engines, and customer platforms.
- Configured and maintained **VPNs**, **firewalls**, **load balancers**, and **DNS**, ensuring secure and uninterrupted access to operational and supply chain platforms across Alcoa's global facilities.
- Built and monitored real-time alerting systems using **Prometheus**, **Grafana**, and **ELK Stack** to track performance metrics, downtime, and production analytics for aluminum plants.
- Tuned performance of databases like **SQL Server**, **Cosmos DB**, and **MongoDB** to support large-scale operational data, enhancing query response time and data accessibility for analytics.

**Environment:** CI/CD pipelines**,** Azure DevOps, Docker**,** Kubernetes, Jenkins**,** Maven**,** Nexus, Terraform**,** Azure Resource Manager, SonarQube, PowerShell, Azure Virtual Machines, VPNs**,** firewalls**,** load balancers**,** DNS, Prometheus**,** Grafana**,** ELK Stack, Cosmos DB**,** MongoDB.

## FMC Corporation | Pittsburgh, Pennsylvania, USA |AWS Devops Engineer| May 2024 – Feb 2025

FMC Corporation is a leading global agricultural sciences company. Deploying, managing, and maintaining AWS infrastructure components like EC2, S3, Lambda, and other services and Automating various operational tasks, including infrastructure provisioning, deployment, and monitoring, using tools like Terraform, Ansible, and scripting languages.

## Responsibilities:

- Designed and automated **CI/CD pipelines** using **Jenkins, GitLab CI/CD, and AWS Code Pipeline** to streamline deployment of agricultural analytics applications, reducing release times and ensuring reliable delivery of digital farming solutions.
- Implemented **infrastructure automation** with **Terraform, Ansible, and AWS CloudFormation**, provisioning secure and scalable environments for crop modeling platforms and precision agriculture systems.
- Deployed **containerized microservices** with **Docker, Kubernetes, and Amazon EKS**, enabling scalable and resilient execution of crop protection simulations and agronomy data processing applications.
- Developed **serverless architectures** using **AWS Lambda, API Gateway, and DynamoDB**, supporting real-time data ingestion and processing from IoT-enabled sensors deployed across agricultural fields.
- Engineered **ETL pipelines** with **Apache NiFi, Talend, and AWS Glue** to integrate structured and unstructured datasets, including soil metrics, weather data, and crop health reports, into centralized analytics platforms.
- Built real-time data streaming solutions using **Apache Kafka, AWS Kinesis, and Google Pub/Sub**, enabling predictive insights for pest management, irrigation optimization, and yield forecasting.
- Designed and managed **data warehousing solutions** with **Snowflake, Amazon Redshift, and Big Query**, consolidating agricultural research data and delivering secure, scalable reporting frameworks.
- Developed **interactive dashboards** using **Tableau, Power BI, and Looker**, providing agronomists and decision-makers with actionable insights into crop performance, sustainability metrics, and production efficiency.

**Environment:** Jenkins, GitLab CI/CD, Terraform, Ansible, Docker, Kubernetes, Amazon EKS, AWS Lambda, API Gateway, DynamoDB, Apache NiFi, Talend, Snowflake, Amazon Redshift, Tableau, Power BI, Looker, Apache Kafka.

### Wockhardt Limited | Mumbai, India | Devops Engineer| Nov 2021– Nov 2023

Wockhardt Limited is a global pharmaceutical and biotechnology company. Implementing and managing automation tools and processes for software development, testing, and deployment and automating tasks like infrastructure provisioning, software builds, testing, and release management and building and maintaining CI/CD pipelines to automate the software development.

### Responsibilities:

- Designed and automated **cloud infrastructure** using **Terraform** and **Ansible**, enabling provisioning and configuration of pharmaceutical manufacturing systems across global plants, and developed CI/CD pipelines with **Jenkins** and **GitLab CI** for faster and reliable deployments of drug research and production applications.
- Implemented real-time monitoring with **Prometheus**, **Grafana**, and **AWS CloudWatch** to track performance of clinical data systems and production environments, and utilized **Docker** and **Kubernetes** for containerization and orchestration.
- Integrated **SonarQube**, **Nessus**, and **Fortify** into CI/CD workflows to enforce code quality, security, and compliance with pharmaceutical industry standards such as **GxP** and **FDA 21 CFR Part 11**, supporting regulatory-ready deployments.
- Developed automation scripts using **Python** and **Bash** to manage recurring tasks in laboratory operations, clinical data processing, and digital manufacturing reporting, significantly reducing manual effort and improving system efficiency.
- Applied **Chef** and **Puppet** for configuration management across hybrid on-premises and cloud platforms supporting **ERP** and **LIMS systems**, and adopted **DevSecOps** practices to integrate security controls into infrastructure.
- Managed pharmaceutical data platforms using **Amazon RDS**, **DynamoDB**, and **Amazon S3**, supporting clinical trial records, formulation databases, while leveraging **Apache Hadoop** and **Apache Spark** for large-scale drug discovery.
- Built executive dashboards with **Power BI**, **Tableau**, and **Grafana** to visualize production KPIs, clinical trial progress, and compliance metrics, and configured secure networks using **VPC**, **Subnets**, **VPN**, **Load Balancers**, and **Firewall Rules** to safeguard sensitive healthcare data.

**Environment:** Terraform Ansible, Jenkins**,** GitLab CI, Prometheus**,** Grafana**,** AWS CloudWatch, Docker**,** Kubernetes, Python**,** Bash, Chef**,** Puppet, Amazon RDS**,** DynamoDB**,** Amazon S3, Apache Hadoop**,** Apache Spark, Power BI**,** Tableau**,** Grafana.

### Raheja QBE General Insurance | Mumbai, India | Cloud Engineer| July 2019– Oct 2021

Raheja QBE General Insurance Company offers a diverse portfolio of general insurance products. Automating software deployments, infrastructure provisioning, and other operational tasks to increase efficiency and reduce manual errors and implementing and maintaining monitoring and logging systems to track application and infrastructure performance.

### Responsibilities:

- Designed and implemented automation scripts using **Python and Ruby** to streamline infrastructure lifecycle management, system monitoring, and log collection, reducing manual intervention and improving operational efficiency.
- Built and integrated **RESTful APIs with API Gateway** for secure data exchange between customer portals, payment gateways, insurance applications, and third-party regulatory services and compliant communication workflows.
- Administered and optimized enterprise-grade **databases including MySQL, PostgreSQL, Oracle, and MongoDB**, ensuring high availability, faster query performance, and secure storage of insurance policies, claims, and transactional records.
- Enhanced scalability and consistency of distributed databases like **Cassandra and DynamoDB**, supporting real-time claims processing, policy validations, and advanced risk analysis across Raheja QBE's insurance platforms.
- Configured and secured **cloud and hybrid infrastructure** using **SSH, DNS, load balancers, and firewalls**, ensuring regulatory compliance, robust data protection, and uninterrupted system availability for critical insurance applications.
- Implemented **infrastructure monitoring solutions with ELK Stack, Prometheus, and Grafana**, enabling proactive issue detection, performance tuning, and real-time visualization of operational metrics to maintain system reliability.

**Environment:** Python, Ruby, RESTful APIs, API Gateway, MySQL, PostgreSQL, Oracle, MongoDB, Cassandra, DynamoDB, SSH, DNS, load balancers, firewalls, ELK Stack, Prometheus, Grafana

**EDUCATION:** **ST Francis College,** Masters in Information technology and management, USA