Prem Kumar

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PROFESSIONAL SUMMARY:

Versatile DevOps & Cloud Engineer with **7 years of hands-on experience** supporting **cloud data platforms, CI/CD automation, and infrastructure modernization initiatives**. Strong background in **AWS, Multi-cloud, Terraform, Python, Kubernetes, and CI/CD pipelines**, with recent focus on **data pipeline orchestration, environment automation, and operational reliability** for analytics and reporting platforms. Proven ability to **troubleshoot complex distributed systems, automate ETL/ELT deployments, enforce DevSecOps controls, and optimize cloud cost and performance** in regulated environments. Experienced working closely with data engineers, analysts, and IT stakeholders to deliver reliable, compliant, and scalable platforms.

TECHNICAL SKILLS:

- **Cloud Platforms**: AWS (EC2, VPC, IAM, S3, RDS, Lambda, CloudWatch, Route53), Azure (DevOps, Networking), GCP
- **Data & Orchestration Platforms:** Snowflake (RBAC, Warehouses, Performance & Cost Optimization – exposure & automation support), Apache Airflow (DAG orchestration, monitoring, deployments), Informatica IICS (pipeline deployment automation, environment promotion)
- **CI/CD & Automation**: Jenkins, GitHub Actions, Azure DevOps, Git, Terraform, CloudFormation
- **Containers & Platform Engineering**: Docker, Kubernetes (EKS), Helm, HPA, Ingress, Cert-Manager
- **Programming & Scripting**: Python, Bash, Shell scripting, SQL
- **Monitoring, Logging & Security**: Prometheus, Grafana, ELK / OpenSearch, CloudWatch, RBAC, IAM, Secrets Management, Encryption
- **Networking & Compliance:** VPC, VPN, Security Groups, NACLs, Private Connectivity, Audit Logging, Backup & DR

WORK EXPERIENCE:

Medpro (Role: DevOps Engineer)   **Jan 2025- Oct 2025**
- Supported cloud modernization and DevOps automation initiatives for data-driven applications and analytics platforms.
- Designed and maintained **CI/CD pipelines for SQL scripts, Python jobs, and Airflow DAGs**, enabling automated promotion across dev, test, and production environments.
- Automated **infrastructure provisioning using Terraform,** managing AWS networking, compute, storage, and Kubernetes resources with environment consistency.
- Supported **Airflow deployments on Kubernetes (EKS),** implementing logging, alerting, and failure notifications for DAG execution issues.
- Implemented **monitoring dashboards using Prometheus and Grafana** to track job failures, pipeline latency, and platform health.
- Tuned **resource utilization and concurrency settings,** reducing pipeline execution delays and improving overall system throughput.
- Led **incident response and root cause analysis** for production failures involving pipeline timeouts, failed DAG dependencies, and IAM permission issues.
- Enforced **DevSecOps practices** by integrating secrets management, RBAC controls, and encryption standards into CI/CD workflows.
- Collaborated with data engineers and analysts to ensure reliable deployments and minimal downtime during data workflow releases.
- Resolved repeated Airflow DAG failures caused by misconfigured IAM roles and missing Snowflake permissions by implementing automated RBAC validation checks during deployment.

Datics Inc (Role: Associate Data Engineer)   **Sep 2023 – Dec 2024**
- Played a key role in **data platform reliability, automation, and cloud operations** for analytics and reporting systems.
- Automated **deployment frameworks for ETL/ELT pipelines**, including SQL scripts, metadata updates, and Airflow DAG versioning.
- Supported **Snowflake environments** by automating role assignments, warehouse provisioning, and environment-specific configurations using Terraform and Python.
- Implemented **cost governance controls**, monitoring warehouse usage and optimizing compute sizing to reduce cloud spend.
- Built **CI/CD pipelines using GitHub Actions and Jenkins** with integrated linting, testing, and security scans.
- Maintained **secure connectivity between cloud and on-prem systems** using VPNs, private networking, and firewall rules.

- Developed **proactive monitoring and alerting** job failures, data freshness issues, and pipeline SLA breaches.
- Participated in **data platform migration efforts** from legacy systems, supporting validation, parallel runs, and cutover planning.
- Authored detailed **runbooks and deployment documentation**, improving cross-team collaboration and operational readiness.
- Identified Snowflake query performance degradation during peak hours and resolved it by adjusting warehouse scaling policies and query concurrency settings.

Excelra (Role: Cloud DevOps Engineer)   **Nov 2018- June 2022**
Hyderabad, India
- Delivered DevOps automation and cloud engineering support for enterprise applications and data-intensive workloads.
- Developed **reusable Terraform modules** to standardize infrastructure across multiple environments and regions.
- Built **CI/CD pipelines** for application and data workloads, enabling automated rollback and safe production releases.
- Implemented centralized **logging and observability using ELK/OpenSearch**, improving troubleshooting for data processing failures.
- Automated **backup, restore, and disaster recovery processes**, ensuring compliance with audit and governance requirements.
- Created Python and Bash scripts for **data validation checks, log analysis, and job monitoring**.
- Supported **security audits and compliance requirements**, implementing encryption, IAM controls, and access reviews.
- Assisted data teams with **performance tuning and job scheduling issues** across batch and near-real-time workflows.

Cigniti Technologies (Role: Build and Release Engineer)   **Aug 2017 – Oct 2018**
Hyderabad, India
- Developed and enforced **cloud security policies**, implementing **IAM RBAC** and encryption best practices.
- Managed AWS & Azure environments, including **CI/CD pipelines** using Azure DevOps (TFS).
- Automated provisioning and deployment tasks using **Python & Bash**, improving operational reliability.

CERTIFICATIONS:

AWS Certified Solution Architect – Associate

EDUCATION:

University of New Hampshire, Durham, NH | MS (Business Statistics) | GPA: 3.2 | **Graduated 2023**

Jawaharlal Nehru Technical University, India | Bachelor of Engineering (Mech) | GPA: 3.0 | **Graduated 2017**