Sonal Kumar Singh

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PROFILE

Certified DevOps Engineer with 2.7+ years of experience delivering scalable cloud-native solutions across AWS and Azure. Specialized in Kubernetes orchestration, GitOps implementation, and DevSecOps practices. Successfully reduced deployment times by 90% and infrastructure costs by 25% while maintaining zero-downtime releases.

SKILLS

Cloud & DevOps
AWS (EKS, EC2, IAM, S3, RDS), Azure (AKS, VMs, Blob Storage), Terraform, Kubernetes (Helm, ArgoCD)

CI/CD & Automation
Azure DevOps, GitHub Actions, Jenkins, Ansible, Docker, GitOps

Development
Bash, Python, SQL, PL/SQL, Git, JFrog Artifactory

Monitoring & Security
Prometheus/Grafana, ELK Stack, Trivy, SonarQube, OWASP ZAP

PROFESSIONAL EXPERIENCE

HCLTech

Kubernetes Migration & Cost Optimization   01/2024 – present │ Noida, India
- Contributed as a **core team member** to migrate 50+ ETL jobs to **AWS EKS,** reducing runtime by **30%** via:
- **Containerization**: Dockerized Python/Java apps using multi-stage builds.
- Configured **spot instances** for non-prod environments (**25% cost savings**).
- Monitored **HPA metrics** (CPU/memory) via Prometheus alerts.
- Deployed **centralized monitoring** (Prometheus/Grafana + ELK Stack) to:
- Reduce MTTR from 4hrs → 2hrs via PagerDuty alerts for pod restarts/node CPU.
- **Result**: Zero downtime during cutover; documented rollout for other teams.

CI/CD Pipeline Overhaul   11/2022 – 12/2023 │ Noida, India
- Replaced **Jenkins** with **Azure DevOps Pipelines**, slashing deployment time from **2hrs → 10mins**
- Enforced Trivy scans and SonarQube gates, blocking 15+ vulnerable builds.
- Implemented **ArgoCD** for GitOps, reducing manual **kubectl** errors by **40%**.
- Analyzed **memory leaks** in Java apps using Grafana dashboards.
- Automated **log retention policies** (S3 + Azure Blob), cutting storage costs by **20%**.

CERTIFICATIONS

- Microsoft Certified: DevOps Engineer Expert (Az-400) 🔗
- Microsoft Certified: Azure Administrator Associate 🔗
- Google cloud Certified Associate Cloud Engineer 🔗

PROJECTS

Cruddur, *An Ephemeral Micro-Blogging Platform* 🔗
- **Backend**: Containerized Flask app (Docker) with ECR for image storage.
- **Database**: Hybrid model – **PostgreSQL (RDS)** for relational data, **DynamoDB** for NoSQL + real-time updates via DynamoDB Streams → Lambda.
- **Auth/API**: Secure auth with **Cognito + Lambda authorizers**;
- **CI/CD**: Automated 0-downtime deployments by CodePipeline/CodeBuild, reducing release cycles by **70%**.
- **Frontend**: React SPA hosted on **S3**
- **Messaging** : Implements Direct Messaging using DynamoDB

Springboot pet clinic app, *DevSecOps Pipeline for SpringBoot App (Azure DevOps)* 🔗
- Built end-to-end CI/CD pipeline with **SAST (SonarQube), DAST (OWASP ZAP), and Trivy scans**, reducing vulnerabilities by **70%**.
- Automated deployments to **AWS EC2 + Azure ACI** using multi-registry artifacts (JFrog, ACR, S3).
- Implemented **self-hosted Azure DevOps agents** on AWS EC2 for cost-efficient builds.

EDUCATION

Bachelor of Technology - ECE, GGSIPU University	**(CGPA- 8.1)**	2018 – 2022
Kendriya Vidylaya No. 3, Delhi Cantt	**(Percentage- 79.6%)**	2017 – 2018