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EDUCATION

Akul Gopal Devali

Cloud & MLOps Platform Engineer

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Portfolio: akuldevali.tech

North Carolina State University | Raleigh, NC, USA

Master of Computer Science

Coursework: Algorithm Design, DevOps, Computer Networks, Cloud Computing, Software Engineering

Aug 2024 — May 2026

GPA: 3.7/4

Vidyaardhaka College of Engineering | Mysuru, India

Bachelor of Engineering in Computer Science

Aug 2018 — July 2022

CGPA: 8.4/10

EXPERIENCE

Cloud Platform Engineer | Liquid Rocketry Lab, Raleigh, NC

Aug 2025 - Present

- Architected and implemented a **Kubernetes-based distributed replay platform**, defining cluster topology, networking patterns and deployment workflows.
- Designed networking architecture enabling **1:1 user-to-pod communication** using Kubernetes Services and ingress routing.
- Implemented **automated deployment pipelines with Jenkins** to dynamically provision and update replay environments.
- Engineered platform to scale to **20,000 concurrent replay sessions** with automated resource orchestration.
- Validated system reliability on **Akamai and EKS Kubernetes cluster**, achieving 99.999% availability during simulation workloads.

Cloud Engineering Intern | Brane Services Pvt Ltd, Bengaluru, India

Aug 2022 - Feb 2023

- Built internal reliability platform for 15+ microservices, combining automated **capacity benchmarking and performance analysis** to ensure stable, cost-efficient deployments.
- Achieved 25% reduction in AWS compute expenses through strategic **right-sizing of EC2 instances**, including migration of 60% workloads to spot instances and dynamic resource scheduling.
- Engineered automated load testing framework using **K6 and built Jenkins CI/CD pipelines with integrated performance gates**, reducing manual testing efforts by 40% while preventing regressions by 30%.
- Designed unified **observability stack with Grafana, Prometheus** and distributed tracing to provide real-time reliability insights and service health scoring across environments.

SKILLS

ML Platform & MLOps - Kubeflow, MLflow, KServe, Data Version Control (DVC), Model Registry, Model Monitoring.

Cloud Infra, Observability - AWS, Kubernetes, Grafana, Helm, Terraform, Ansible, Jenkins, GitHub Actions, Prometheus, Istio, Python, Bash

PROJECTS

MLOps Churn Prediction Platform | Argo CD, Kubernetes, Kserve, GitHub Actions, S3

Jan 2026 - Mar 2026

- Designed and implemented an **end-to-end MLOps pipeline** for training, versioning and deploying a churn prediction model using **Python, scikit-learn, Kubernetes and AWS S3**.
- Built a **CI pipeline with GitHub Actions** to automate dataset generation, model training, artifact packaging and S3 model publishing.
- Implemented **GitOps deployment using Argo CD**, automatically syncing Kubernetes manifests and triggering model rollouts on Git changes.
- Deployed scalable inference using **KServe on Kubernetes**, integrating S3-backed model storage, service accounts and secrets based authentication.

Containerized Microservices Deployment using GitHub Actions | EC2, Ansible, k6, GitFlow

Aug 2025 - Dec 2025

- Built a robust CI/CD pipeline for a containerized Node.js application, utilizing GitHub Actions for orchestration and Docker Hub for artifact management.
- Implemented **shift-left security practices** by integrating **pre-commit hooks** for static code analysis and dependency audits in local and development environments, and configured CI workflows to scan every pull request for secret leaks and vulnerabilities prior to merge.
- Developed **Ansible playbooks** to automate configuration management, utilizing dynamic inventories to isolate Staging and Production environments.
- Implemented a **Performance Quality Gate using k6**, preventing performance regressions by automatically halting production rollouts if load tests fail in the staging environment.

ACHIEVEMENTS AND EXTRA-CURRICULAR

- Awarded AWS All Builders Welcome Grant to attend AWS re:Invent Las Vegas 2025 for contribution towards Cloud and DevOps learning.
- AWS Certified Solutions Architect and Google Cloud Platform specialization in Architecting with Google Compute Engine.
- Active member of Google Developer Student Club (GDSC) Cloud Chapter and Teaching Assistant at NC State University for IT Concentration Business Management courses.