# Sutrishna Anjoy

*Site Reliability Engineer — MTech in Computer Science*
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## Summary

Site Reliability Engineer with 2 years of experience expertly managing and optimizing **Kubernetes** clusters on **Google Cloud (GKE)**. Dedicated to ensuring high availability, scalability, and performance, with a knack for crafting efficient **Jenkins** pipelines to streamline deployment processes. Skilled in **troubleshooting** and **debugging**, including proficiency in **Linux** and **Networking**.

## Technical Skills

**Cloud**: GCP, AWS, Azure
**Orchestration**: Kubernetes/K8s, Kustomize, Helm, ArgoCD, Docker
**CI/CD**: Jenkins, Gitlab, Spinnaker, Terraform, Ansible
**Monitoring & Alerting**: Prometheus, Grafana, Alertmanager, PagerDuty, ELK Stack
**Troubleshooting & Debugging**: Linux, Networking
**Scripting & Automation**: Python, Bash

## Work Experience

**Site Reliability Engineer** Jul. 2022 – Present
*Media.net - it's one of the Top 5 largest ad technology companies.* *Mumbai, India*

- Monitoring and maintaining multiple GKE clusters across regions.
- Lead the analysis and planning of reducing cost of existing cloud resources used in the projects.
- Setting Logstash pipelines, Kibana alerts, watchers for Developers.
- Writing Jenkins pipelines to automate some of our repeating tasks.
- Day-to-day used technologies - Kubernetes, Kustomize, Helm, Google Cloud (GKE, AR), ArgoCD & Rollouts, ELK, Jenkins, Docker, Git.
- **Key Project -** Cost Optimization through Kubernetes Resource Management.

**SRE Intern** Feb 2022 - Jul 2022
*Media.net* *Mumbai, India*

- Understood Linux, Networking, Distributed systems, Virtualization.
- Learned and practiced SRE concepts like Monitoring, CI/CD, containerization, orchestration.
- Reviewed and helped out in maintenance of GKE, ELK clusters.

## Projects

**Cost Optimization through Kubernetes Resource Management** | *GKE, Prometheus* Dec 2023 – Feb 2024

- Leveraged Grafana with Prometheus for real-time application performance monitoring, dynamically adjusting Kubernetes YAML resource requests and limits based on usage.
- Conducted in-depth analysis of GKE Nodepool resource utilization, eliminating unused nodes and downsizing the node pool to maximize efficiency.
- Seamlessly migrated the main services to the optimized node pool, maintaining top-tier performance & reliability.
- **Achieved** a significant **40% reduction** in infrastructure **costs** through strategic resource management and node pool optimization.

**Jenkins Automation for Deployment and Maintenance** | *Jenkins, Automation* Oct 2022 – Jan 2023

- Automated Jenkins pipeline for staging and canary deployments, ensuring rigorous testing before production.
- Implemented CD pipeline in Jenkins for seamless updates and quick rollback to previous versions, minimizing downtime.
- Developed pipelines to auto-clean staging and canary environments based on schedules.
- Scheduled regular cleanup of GCR and AR to optimize storage and maintain efficiency.
- Jenkins pipeline for automated SSL/TLS certificate updates across applications, ensuring ongoing security compliance.
- Created pipeline to monitor and auto-delete surplus on-demand nodes, optimizing resource use and reducing costs.
- We have successfully **reclaimed 70%** of the team's **productive work time** that was previously wasted on these tasks each day.

## Education

**Indian Institute of Engineering Science and Technology** Shibpur, India
*Master of Technology, Computer Science and Technology* *2020 - 2022*

- Area of study: **Deep learning**.
- **Wrote thesis on Identification of Lung Cancer Nodules from CT images using 2D Convolutional Neural Networks.**

**Jalpaiguri Government Engineering College** Jalpaiguri, India
*Bachelor of Technology, Information Technology* *2016 - 2020*

## Awards And Achievements

**M. Tech Topper - IIEST Shibpur**
*Dec 2022*

## Publications

**Lung Cancer detection using 2D CNN - Springer**
*Jun 2022 - link.springer.com/chapter/10.1007/978-981-19-3089-8_13*

In this paper, we use 2D convolutional neural networks to detect malignant nodules from CT scan images. We use modified VGG16 for the identification of lung cancer.