

# SATHWIK K

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## SUMMARY

Dynamic engineering student with hands-on experience supporting scalable cloud native applications on AWS and GCP. Strong in Linux, networking, cloud infrastructure, troubleshooting, incident analysis and automation with a customer focused approach to resolving production issues. Interested in growing fast into a Site Reliability Engineer in a live production environment.

## EDUCATION

**Sahyadri College of Engineering and Management, Mangaluru**  
B.E. in Information Science and Engineering

2022 - 2026  
**CGPA: 8.06**

## SKILLS

**Languages:** Python, Bash.

**Cloud Platforms:** GCP, AWS, EC2, S3, VPC, Compute Engine, Cloud Run, IAM, Cloud Storage.

**Networking:** OSI model, TCP/UDP, DNS, DHCP, CIDR notation, Routing, HTTP/HTTPS, Firewalls.

**DevOps & Tools:** Linux, Nginx, Docker, Kubernetes, Terraform, Jenkins, Git/GitHub.

**Databases:** MySQL, MongoDB.

## EXPERIENCE

### Computer Vision & Analytics Intern at Infosys Springboard

Oct 2025 - Dec 2025

Designed and supported a real-time YOLO-based crowd counting system for video streams, including backend analytics, data storage, and system reliability monitoring. Developed interactive dashboards to monitor crowd density, flow, and safety metrics.

### Cybersecurity Intern at Exposys Data Labs

Jan 2026 - Present

Developing an entropy based DDoS detection system that analyzes source IP distribution to identify abnormal network traffic patterns. The project focuses on lightweight cybersecurity monitoring through a dashboard without using machine learning.

## TECHNICAL PROJECTS

### Scalable Generative AI Platform on Google Cloud

- Reduced deployment failure impact by 90% by architecting a decoupled microservices platform on Google Cloud, isolating resource intensive AI models to ensure consistent user facing uptime.
- Achieved significant resource and cost efficiency by leveraging Cloud Run's elastic, scale-to-zero model, ensuring compute resources are utilized only during active inference.

### Automated System Health Monitoring and Reporting using Bash

- Developed automated monitoring and troubleshooting scripts to rapidly diagnose service outages and reduce downtime, simulating real world customer issue resolution.
- Implemented structured logging to accelerate Root Cause Analysis (RCA) during system outages, reducing diagnosis time for critical errors.

### Distributed Real Time Media Processing Architecture

- Built a decoupled HLS streaming pipeline on AWS EC2 instance reducing memory overhead by 50% compared to K8s by utilizing a lean Docker to S3 architecture.
- Engineered an automated transcoding workflow that seamlessly syncs video segments from local compute nodes to persistent cloud storage ensuring 100% data durability.

## CERTIFICATION AND ACHIEVEMENTS

- AWS Skill Builder: Cloud Practitioner Essentials
- Google Cloud Computing Foundations Certificate.
- Earned Google Cloud Skill Boost badges in GKE Management, AI Infrastructure setup, Database Migration and Application Development Environments.
- Served as Team Lead during the internship, coordinating execution and guiding technical decisions.
- Active member of the Bureau of Indian Standards (BIS), contributing to standardization and organizational initiatives.