

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.