

SAURAJ KUMAR SINGH

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MBTI: INTP — Introverted, Intuitive, Thinking, Perceiving

EXPERIENCE

Software Engineer Intern - DevOps

May 2025 – Present

ES Magico AI Studio

Remote

- Led deployment setup across multiple projects using Docker and GitHub Actions.
- Set up scalable monitoring and load balancing with multi-instance support inside custom VPCs.
- Migrated DNS infrastructure from Route 53 to Cloudflare and integrated Kong API Gateway for multiple projects.
- Integrated a comprehensive security pipeline into the main DevOps workflow, automating threat detection, password strength validation, and DDoS monitoring using custom scripts and tools.
- Automated provisioning and infrastructure using Terraform, Ansible, and Make-based workflows.
- Designed and implemented Azure infrastructure including Virtual Networks (VNet), Application Gateway, and Virtual Machine Scale Sets (VMSS) for high availability and controlled traffic routing.
- Built and managed AWS infrastructure with VPC design, Application Load Balancers (ALB), and Auto Scaling Groups to support horizontally scalable services.
- Developed custom scripts to manage and inject environment variables securely using HashiCorp Vault across multiple environments.
- Performed load and stress testing on production-like environments to validate scalability, fault tolerance, and traffic handling limits.

Backend Developer Intern

Feb 2025 – June 2025

Welmun-Tech India Pvt Ltd

Remote

- Contributed to DevOps practices including CI/CD pipelines, containerization using Docker, and basic Kubernetes orchestration.
- Assisted in architecting microservices and applying event-driven design patterns for modular services.

OPEN SOURCE CONTRIBUTIONS

Maintainer

2021 – 2022

CipherOS | ciphers.online

- Maintained device tree for RMX2151 and handled CI/CD workflows to automate Android build releases.
- Managed project automation via GitHub Actions and optimized pipeline performance and debugging.

PixelPlusUI | ppui.site | XDA Thread

- Maintained Android ROM builds for RMX2151 and provided timely OTA updates to the community.
- Authored utility scripts to streamline test builds and automated file uploads for CI-based workflows.

SELECTED PROJECTS

ksau CLI/Web Tool (*Go, Bash*) [GitHub]

2021 - 2025

- Designed a CLI and web tool for file uploads to OneDrive using Microsoft Graph API.
- Migrated from Bash to Golang for better concurrency, performance, and maintainability.
- Developed the backend API, which is used in the ksau-py, and designed the web version.
- Deployed link: ksau.ksauraj.eu.org.

JEE Counsellor (*Python*) [GitHub]

2023

- Developed a terminal tool to help students with JEE counseling procedures.
- Parsed official data and provided personalized suggestions via terminal UX.

Telegram Bash Bot [GitHub]

2022

- Created a Telegram bot in Bash, capable of performing API-driven tasks via Telegram.
- Used as a base template for Bash-based bot development over the Telegram API.

Android Automation (*Python, GitHub API, GitLab API, Telegram API*) [GitHub]

2022

- Built a Telegram Bot-powered service to automate Android firmware dumps, recovery creation, and repo setup.
- Streamlined Android custom ROM contributions with minimal manual input.

K8au Shell Analyzer (*Go, TUI, AI*) [GitHub]

2024

- Interactive terminal tool that analyzes shell command history to discover behavioral patterns.
- Used LLM-based NLP to cluster and summarize usage insights.

TECHNICAL SKILLS

Languages: Go, Python, Bash, C, JavaScript, HTML/CSS, YAML, SQL

DevOps & Automation: Docker, Kubernetes, Helm, GitHub Actions, GitLab CI, Ansible, Terraform, Makefile, Docker Compose, CI/CD Pipelines, Infrastructure as Code (IaC)

Cloud & Platforms: AWS (EC2, S3, IAM, ECS, Fargate, VPC, ALB, Auto Scaling, CloudFront, CloudWatch), Azure (VNet, VMSS, Application Gateway), GCP, Oracle Cloud, Linode, Microsoft Graph API

Observability & Monitoring: Prometheus, Grafana, Loki, Promtail, Node Exporter, cAdvisor, Wazuh, Log Aggregation, Alerting

Networking: TCP/IP, DNS, HTTP/HTTPS, TLS/SSL, Load Balancing, Reverse Proxies, Routing, Subnetting, VPN, API Gateways, Network Troubleshooting

Security & DevSecOps: HashiCorp Vault, SBOM Generation, Container Security, Secret Management, Vulnerability Scanning, Security Automation, PCI DSS Fundamentals, DDoS Detection, Access Control

Databases: MySQL, Database Design, Query Optimization

Linux & Systems: Linux, Systemd, Shell Scripting, Tmux, Vim, Process Management, Server Administration

Tools & Technologies: Git, REST APIs, Webhooks, Kong API Gateway, Nginx, Caddy, Railway, Heroku, Cirrus CI, Android Build System, Android Firmware Development

EDUCATION

Bachelor of Technology (B.Tech.)

Information Technology, AKTU

2023 – 2027

CGPA: 8.1