Suraj Kushwah

DevOps Engineer - UP, India, 243006

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Work Experience

4 years of experience with two full-time roles and multiple freelance projects in DevOps & Backend.

OnePlay Cloud Gaming - DevOps Engineer

Mumbai, India; Jul 2023 – Present

- Architected and managed Prod / QA / Dev environments on AWS, Linode & GCP cloud, optimizing for cost efficiency.
- Designed and optimized GPU-based gaming servers deployed at Yotta Data Center, Mumbai.
- Built Kubernetes clusters for microservices and workloads, ensuring scalability and redundancy.
- Implemented CI/CD with Jenkins pipelines for automated builds, testing, and deployment.
- Deployed AWS GuardDuty, WAF, and HashiCorp Vault to strengthen cloud security and secrets management.
- Built an advanced observability stack with Grafana, Prometheus, Kibana, and Zabbix with custom alerting.
- Managed database clusters like Percona MySQL, MongoDB, Redis, InfluxDB, and Elasticsearch.
- Automated server provisioning, scaling, and maintenance with Terraform, Ansible, Bash/Python scripts.
- Led on-call incident management, minimizing downtime with proactive monitoring and automated failover strategies.

Bipolar Factory – DevOps & Backend Engineer

Bangalore, India; Nov 2021 - Apr 2023

Falcon - AI Powered Surveillance

- Developed real-time CCTV inference pipelines leveraging DeepStream & TensorRT, improving video processing speed.
- Built a REST API for AI-based smart surveillance, integrating automated anomaly detection & security alerts.
- Optimized distributed processing pipelines for handling high-resolution video feeds.

Goa Election Project

- Managed 200+ RTSP CCTV streams for real-time election monitoring.
- Developed a sound-based vote counting system using AI to detect voting machine beeps.
- Automated server deployment & scaling for monitoring high-traffic election dashboards.

StreamQuicker - Low-Latency Video Streaming

- Developed a WebRTC to RTMP streaming service using FFmpeg, RTMP, and ossrs/srs.
- · Designed auto-scalable, distributed streaming architecture, improving latency and stream reliability.
- Used AI models to predict and distribute streaming loads efficiently across servers.

AiViS - Industrial AI & Automation

- Developed an AI-powered defect detection system for manufacturing quality control.
- Integrated PLC controllers for real-time industrial automation in factory conveyor systems.
- Built a data pipeline for analyzing, alerting, and reporting defects in production lines.

SafePlant - ML-Based Factory Workers Safety System

- Led the development of a plant safety system utilizing machine learning and computer vision to detect safety hazards.
- Trained models using TensorFlow to analyze plant images and videos for potential risks.
- Developed a Flask-based backend web service with WebSocket integration for real-time communication.

Key Skills

- Cloud & DevOps AWS, Linode, Kubernetes, Docker, Terraform, CI/CD, GitLab, Jenkins
- Infrastructure Management Foreman & Puppet, Nginx, Wazuh, Zabbix, Grafana, Uptime Kuma
- Security & Compliance HashiCorp Vault, Auditd, IAM, Cloudflare, SSO, Pritunl VPN
- Monitoring & Logging Prometheus, Grafana, ELK Stack (Elasticsearch, Logstash, Kibana), InfluxDB
- Networking & Load Balancing Nginx, HAProxy, Apache
- High Availability & Scalability Auto Scaling, Load Balancers, Multi-Region Deployments, Proxmox, KVM
- Message Queues & Databases Kafka, RabbitMQ, Redis, PostgreSQL, MySQL, MongoDB

Education

Bachelor in Technology & Computer Science

2018-2021

Dr. A.P.J. Abdul Kalam University - Lucknow, UP, India

Senior Secondary College

2015-2016

Maharishi Vidya Mandir - Bareilly, UP, India

Personal Projects

All my projects source code is available on https://github.com/bugswriter/project-title>.git

- ffmagic A simple DVR (digital video recorder) system written in Python. Runs FFmpeg with async multiprocessing.
- tuxi A smart command-line assistant written in Shell. Widely used by Linux users, powered by Google search.
- cook50 A virtualized recipe book with a meal planner and timer, written in Flask. Features a login system.
- zest-website College fest website with over 2000 student registrations. Includes profiles, events and admin dashboard.
- bugsnavi A custom OS script to automate the installation and configuration of Arch Linux and essential software.
- offerclub An eCommerce website built from scratch using Flask. Includes cart, checkout, and order management.

Miscellaneous

- BugsWriter YouTube Channel 30,000+ subscribers; covering topics on Linux, DevOps, and self-hosting.
- Infrastructure Consulting Advised individuals & companies on system scalability, DevOps pipelines, and cloud solutions.

For more details about my work, visit my personal website: <u>bugswriter.com/work</u>