

# SOUMYA RANJAN ROUT

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**Lead SRE /DevOps Engineer:** Over 8+ years of experience in designing, implementing and managing cloud-based infrastructure and automation.

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## EDUCATION

- [September 2022] **Master of Science (MSc)**, Liverpool John Moores University  
Computer Science (**Distinction**)
- [August 2011] **BTech**, Biju Patnaik University of Technology  
Electronics & Instrumentation Engineering

## ACCOMPLISHMENTS (Passionate about building scalable Infrastructure)

- **Continuous Integration & Continuous Delivery:** Designed and Implemented branching strategy & CI pipeline for PR and Merge, where automated builds, tests, and Security scans will run (**Bitbucket pipeline, Jenkins pipeline, Gitops**). Implemented 100s of continuous delivery pipelines where code changes are automatically built, tested, and prepared for production release.
- **Continuous Monitoring and Logging:** Infrastructure Monitoring, Application Monitoring, and Network Monitoring using **Prometheus, Grafana, Datadog, Splunk, ELK, Nagios**, and **Cloud-watch**.
- **Configuration Management Tools:** Implemented Ansible for automated application deployment, resulting in a 90% reduction in deployment time. (**Ansible, Chef, Puppet, Salt Stack**)
- **Infrastructure as Code:** Led a team in implementing Infrastructure as Code practices(**Terraform**), resulting in a 50% reduction in infrastructure provisioning errors. Developed automated deployment pipelines using Ansible and Git, increasing deployment frequency by 60%.
- **Security:** Secure continuous integration and continuous delivery (CI/CD) pipelines. **SonarQube scanner**(static code analysis). **Penetration testing** for a web application **HostedScan**.
- **Minimize downtime or Zero Downtime:** Design/develop deployment strategies that change incrementally and track application health according to configurable rules. Deployments can easily be stopped and rolled back if there are errors.
- **Deployment Strategies:** Highly experienced in deployment strategies such as **In-Place Deployments, Blue-Green Deployments, Canary Deployments, Linear Deployments, All-at-once Deployments, Rolling Deployments, Rolling with Additional Batch, and Immutable Deployments**.
- **QA Automation** - Automation Testing with Python & Go. Expertise in writing Test strategy, Test Plan Preparation and Implementation, Test Case Design, Test Tool usage, Test execution, Defect Management and Defect Tracking.
- **Behavior Driven Test:** Automated Behavior Driven Test(**Python, Go**) using **cucumber BDD framework** also integrated with CI/CD pipeline for a faster software release.
- **AWS Cloud:** Highly experienced in **AWS** resources **EC2, Lambda, SQS, SNS, ACM, ELB, EKS, ECR, IAM, S3, ELBs, API Gateway, RDS, Fargate, ECS, DynamoDB, Aurora, Route53** and **EFS volume**.
- **Containerization and Orchestration:** Implemented **Docker** containers for application packaging and deployment, resulting in improved portability and scalability.

Orchestrated containerized applications using **Kubernetes**, effectively managing scalability, high availability, and automated deployment.

- **Development:** Designed and developed a **Python** tool that automates infrastructure creation using Terraform and Ansible. The tool was used to create cloud infrastructure for a major client, resulting in a 50% reduction in infrastructure setup time.
- **Proof-of-Concept Projects:** Presented the POC findings to stakeholders, highlighting the benefits of centralized log management and its impact on operational efficiency.

## WORK EXPERIENCE

### Lead SRE/DevOps Engineer, Renoworks Software, Jan 2022 – Till now

Managed a team of DevOps engineers responsible for developing and implementing DevOps strategies, tooling, and processes for multiple projects. Managed **AWS services**, Cloud security, **CI/CD pipelines**, and Building testing frameworks. Implemented **Kafka** and integrated it with Java.

### Senior Member Technical Staff (SRE), Oracle, June 2021 – Jan 2022

Created an API Testing **Golang** framework based on **BDT Cucumber**. Designed a pipeline for **CI/CD deployment** of microservices. Automated the creation of DNS A records. Developing and implementing the new region build. Implemented **Kubernetes** cluster in OCI cloud.

### Senior Software Engineer (DevOps), Walmart, July 2020 – June 2021

Designed and Implemented CI/CD pipeline, Branching and deployment strategy for **Azure** (both VM & **Kubernetes**). Integrated the **SAST** tool (**SonarQube**) into a CI/CD pipeline. **Python CLI** for infrastructure. For faster results, we implemented **Redis** clusters to send 70% of requests.

### Automation Engineer, Rubrik Inc., May 2019 – July 2020

Implemented Kubernetes in **AWS EKS** with **ingress** and **Kong API gateway** with OAuth2.0. Maintain Kong API gateway. Incorporated a unique Python programme to communicate with Kong. Developed a full-stack application (**Python Django**, React) to handle resources in VMware. Implemented tools using Ansible and Terraform to build infrastructure and Kubernetes clusters from CLI.

### Software Technologist II, Philips, October 2017 – May 2019

Developed a service **one-click deployment** using Python, Ansible, and Terraform. Created and operated distributed logging: **ELK**, **EFK**. Implemented **Zero-downtime** continuous deployment by rolling upgrade strategy. Automated **rolling restart** of servers with Zero-downtime.

### Senior Software Engineer I (SRE), FIS, September 2016 – September 2017

Worked on JENKINS files and shell provisioning scripts for SDP platform installation. Collaborated with a development team of 6 to deliver a fully automated CI/CD pipeline ahead of schedule.

### Software Engineer, TEKsystems Inc., August 2015 – September 2016

Developed Python application for monitoring using the **Django MVC model**. Created CI/CD pipelines by integrating GitHub, Maven, Jenkins, and **Puppet**. Reduced deployment time from 1 hour to 30 minutes by automating the deployment process.