

RAKTIM HALDER

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DevOps Engineer

DevOps Engineer with 2+ years of experience in architecting and automating integral deployments over big on-prem and cloud infrastructures. Proficient in MVP development, REST API, scripting, CI/CD, monitoring, operations and documentation. Developed SlackBot deployed in AWS for CMS and slashed on-call time by approx 40%.

Professional Certificates

- [SRE and DevOps Engineer with Google Cloud](#)
- [AWS Fundamentals](#)
- [Google IT Automation with Python](#)
- [Google IT Support](#)
- [Open Source Software Development, Linux and Git](#)

Technical Skills

Programming Language : Python, Go Lang, Bash, JavaScript, NodeJS, Java, C++, C

DevOps Tools : Jira, Confluence, Vagrant, Git, Jenkins, Ansible, Docker, Kubernetes, Helm, ArgoCD, Consul

Cloud Computing : Terraform, AWS CLI, IAM, EC2, ALB, Lambda, DynamoDB, Cloudwatch, Gcloud CLI, GKE

Monitoring : Splunk, Elasticsearch, Logstash, Kibana, Prometheus, Grafana

REST API : NodeJS, Express, Nginx, Ajax, Swagger API, Postman, JavaScript

Others : Linux, Ubuntu 20.04, CentOS 7, MySQL, MongoDB, RMQ, Kafka, SlackBot, X matters, JFrog, Makefile

Work Experience

VIASAT INDIA PRIVATE LIMITED [OCTOBER '20 - PRESENT]

- *Software Engineer I (Team : Satellite Media Access Control) – [August '22 - Present]*

Kubernetes Deployment : Deployed existing MAC solution, that has been deployed in VM using docker-compose, using Kubernetes to improve scalability and hardened security aspects of existing product. This effort allowed to develop and optimize the sensitive product within company itself instead of handing over to 3rd party.

- *Software Engineer I (Team : Dynamic Service Chaining / Overlay Networking) – [October '20 - July '22]*

On-Call SlackBot : Developed a SlackBot from scratch, that is deployed in AWS using Terraform, for CMS and slashed on-call time by approx 40%. The bot can access different *REST APIs*, monitor numerous Alert channels, can prepare a summary for On-Call members by end of the day and generates dashboard links for the ease of Post-Mortem of any major IM (*Incident Management*).

Proxy Service Registry : Developed a Proxy Service Registry from scratch, that is deployed in AWS using ECS, to decouple Consul dependency from underlay network, and reduced production incidents due to missing entries in Consul by approx 90%.

Monitoring Product Owner : Created *Splunk* dashboards from scratch to create user-friendly lightweight panels which can handle heavy traffic, for a team that relies heavily on system visibility for on-call support, reduced cost incurred by Splunk by approx 60% and load time for Splunk Dashboards by 40%. Established Splunk best practices across team, enforced Splunk dashboard creation using *XML* so that *CMS* can be implemented using GitHub and created alerts using *cronjob* and *slack* and *xmatters webhook*. Optimized a Go Lang based stats generator to push necessary *KPIs* to *Elasticsearch* via *Kafka* by decoupling the monolithic file into component specific files for better handling with all functions using single stats pusher endpoint and custom logger.

Diagnostic Python Script : Optimized Pinger Script by changing design to decoupled functions, switching *Regex* based expressions to String manipulation, code reuse, usage of *threads* and thereby achieving boost-up in speed up to 50%. Added elegant error handling to *Diagnostic* Python script and work on lots of enhancement to suit requirement of *On-Call* personnel and ever changing proprietary product. This script uses different *REST APIs* and *MongoDB* as source of truth.

Testing : Created a Testing Setup from scratch to test AWS pipeline locally using *Localstack*, deployed using *Docker-Compose*, reduced cost incurred for regression by approx USD 400 per month. Lambda Trigger pipeline was created using *AWS CLI*, *IAM*, *DynamoDB*, *DynamoDB Streams*, *Lambda* and *RMQ*. Also worked on *regression setups* for *manual testing* and *automated* numerous *testcases* using *Ansible*.

Github Projects

[Vagrant](#) : Vagrant project that can create cluster of VMs using customizable JSON file and credentials. Provides option to bootstrap using shell scripts. Custom DNS server is also installable.

[Terraform](#) : Terraform project with custom modules and AWS scripts. Structured for production level projects. Custom Makefiles are included to ease Terraform interaction.

[Ipatser](#) : A REST API server written in Go Lang, that is deployable as systemd process and container. Multi-stage dockerfile that allows to build, test and deploy in those stages.

[Meerkot](#) : A slackbot written using NodeJS. Provides option for customised workflow. Useful in automation of On-call duties and Monitoring.

[ELK](#) : Documentation of ELK stack installation with a custom pipeline for a large dataset. Screenshot of Kibana dashboard is attached.

Education

Jadavpur University, Kolkata, India : B.E., Computer Science and Engineering [Jul'16 – Jul'20] : CGPA:7.87

IIT Madras, Chennai, India : B.Tech., Engineering Physics [Jul'15 – Nov'15] : CGPA:NA