Yogesh Kumar Sharma

Staff Software Engineer (SRE/DevOps)

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Location :	**Bangalore**

Objective

To provide your organization with the best possible computer and systems administration, maintenance and support services where all my Development, Testing and Admin Skills will contribute to organization efficiently.

Summary

- Professionally accomplished software engineer with over 9+ Years of diversified experience as DevOps/SRE and Development in e-Commerce, BFS, FMCG, Large Scale Software Companies.
- Disciplined with proven abilities to manage multiple assignments efficiently, ascertaining needs and goals, streamlining existing operations, envisioning new concepts and future trends and following through with development, direction and accomplishment.
- Focused on engineering excellence.
- Strong experience in Public Cloud in a variety of distributed computing environments.
- Strong experience in Infrastructure as a Code (IaaC). Automating almost everything possible.
- Developing tools and services for better developer productivity in various languages such as Python and Go.
- Solving complex problems for mega scale distributed environment.
- Strong experience in CICD, Monitoring development and observability, HA/DR, Fault Tolerance and Auto-Remediation.
- Containerizing services and handling large scale Kubernetes environments.
- Opensource contributions

Key Skills (Tools and Technologies)

As an DevOps/SRE, skills are not limited to specific tools and technologies but more aligned to what best can be chosen/developed to solve a problem efficiently. To name few tools and technologies that I have actively worked on are as follows:

•	**Language**	Python, BASH and Go Lang (Beginner in Go)
•	**Cloud & Virtualization**	AWS, Cloud Stack (Apache/Citrix).
•	**Containerization**	Docker, Kubernetes (KOPS and EKS)
•	**Operating System**	RHEL (6/7), CentOS (6/7), Amazon Linux 2
•	**CICD, Orchestration & Tools**	Jenkins Blue Ocean, Rundeck, ArgoCD, Argo Rollout, Chef, Code Deploy, Code Pipeline, Troposphere, packer, terraform etc.
•	**Network & Security**	DNS (Bind, FreeIPA), AWS NACL, WAF, IP-Tables, TCP/IP, IPv4, HTTP/HTTPS, etc.
•	**Application Servers**	Apache Karaf, Tomcat, Jboss
•	**Web Servers/SSO**	Nginx, Apache Web Server, IBM HTTP Server, Lightpd
•	**Monitoring**	Nagios, Icinga, Check Point, New Relic, Chart Beat, AppDynamics, Splunk, Wily, SiteScope, Cloud Watch, Monit etc.
•	**Database**	MySQL, Influx-DB (TSDB)
•	**No SQL**	Aerospike, Mongo, Couchbase
•	**Caching**	Varnish, Aerospike, Akamai, Memcached
•	**Log Mgmt & Visualization**	Splunk, Wavefront, ELK, EFK, Grafana, StatsD, Graphite, Telegraph, Prometheus

Experience

1. **Organization:** Intuit Inc. *(25 Jan 2016 to Present)*
   Designation: Staff Software Engineer (DevOps and Site Reliability Engineering, Intuit Developer Platform)

   Role and Responsibilities:

   - In this role, as a part of Intuit Platform Team, I am mainly focused on Engineering excellence, Site Reliability, CICD, Monitoring development and Observability, Application and Service/Tool Development, Automation, K8S and Containers, writing patterns and Cloud native application design for better developer productivity.

- Managing the reliability, observability of tier-0 service with throughput of 1 million requests per second and over 15 billion transactions per day having single digit millisecond latency.

- Taking off the burden from hundreds of Intuit team by managing their North-South traffic through in-house high-scale API Gateway and east-west traffic through service mesh for thousands of Internal/External Services by providing a robust, scalable, fast and secure communication channel.

- Solving large scale complex problems such as deployment at scale, monitoring at scale, mega scale cloud environment management (AWS and Kubernetes), Infrastructure as a Code (IaaC) i.e., either writing custom solution from scratch or using available open-source tools and technologies, HA/DR, Fault Tolerance and auto-remediation and Capacity planning.

- My current role is not limited to specific tools but more around choosing the best solution for the problem (as above) when managing mega scale distributed systems, however, to name few:

  o Python (almost everywhere) and Go (started with it recently) for all Automations, Service and Tools Development.
  o AWS as Public Cloud.
  o Jenkins, ArgoCD, Rundeck, Code Deploy and Code Pipeline etc. for CICD
  o KOPS, EKS for Kubernetes.
  o Docker for containerization.
  o Troposphere (**Also as Contributor**), Packer, Terraform, Chef, Ansible for IaaC, Orchestration and Configuration.
  o Monitoring development using Enterprise solution or open source like telegraf, Graphite, StatsD
  o Nginx, Envoy as webserver. Using envoy is one of the design decisions that I suggested. This is now being used as primary webserver for End-to-End HTTP2, GRPC Gateway and templating its config using Python+Jinja2.
  o Handling more than 50,000 DNS records in single AWS Zone and have individual user access their own Record (self-service feature) without giving them access to this hosted zone but using custom authentication service (I call it Team Based Authentication).
  o Cross Region Sync to enable failover to scale: Failing over to secondary region automatically in not more than 30 seconds while serving over a million requests per second.

  My weekly activities are divided as:

  o 55-60% Writing Automation and Services
  o 25-30% time in RTB and On Call where I make sure existing thing runs at scale with minimum MTTR and MTTD.
  o Remaining time in mentoring New or Junior members of team, writing SOP, Runbook so that other members in team are up to the speed as soon as possible.

2. **Organization:** SNAPDEAL.COM *(19 Jan 2015 to 22 Jan 2016)*
   Designation: Senior DevOps Engineer

   Role and Responsibilities:

- One of most interesting projects that I have worked on, that is designing an Infrastructure for Free-Charge Payment Wallet (also known as KlickPay) from scratch which includes:

  o Building a Hybrid Infrastructure spawned across Public Cloud (AWS) and Private Cloud.
  o Designing CICD to deploy hundreds of micro-services at scale using Jenkins, Code Deploy and Pipeline.
  o Configuration management using Chef and Ansible.
  o Fault Tolerance Automations to recover from incidents.
  o Scaling Infrastructure to handle billions of request and surge in incoming requests due to flash sales during Festival season in India.
  o SISA compliance for Payment (PCI) Infrastructure.
  o Designing an Internal WAF (Web Application Firewall) for Internal Application using Mod Security, Apache Webservers and HAProxy (with ACL applied for DDOS prevention).
  o An uptime of 99.999% over year and 100% during peak business days.
  o OS Management, Tuning and Hardening
  o Deploying Host Based Intrusion Detection System (HIDS) OSSEC to monitor system and user Activity.
  o Central Authentication (Dual Factor/MFA) using Free IPA.

- Site Reliability Engineer for Snapdeal.com

  o Festivals are big in India and making sure snapdeal.com serves all it users to give them best shopping experience was the primary responsibility.
  o Designed and deployed first ever log management stack using EFK (Elastic Search, FluentD and Kibana) for snapdeal.com and its products including KlickPay.
  o Designed and deployed first Internal distributed DNS server using FreeIPA for better Infrastructure management.
  o Managing Internal PKI Infrastructure for Internal Certificate Authority.
  o NoSQL databases such as Aerospike, Cassendra, Memcached.
  o ScaleArc as Load Balancer for Relational databases.
  o Mentoring Junior and new team members.
  o Part of Hiring team to help established brand new SRE team in Bangalore, India.

3. **Organization:** IPsoft Inc. *(12 March 2012 to 05 Jan 2015)*
   Designation: Application Engineer (Infrastructure)

   Part of Application Engineering Team. Application team was shared SRE Team (App Ops in 2012) for managing infrastructure for all its Major Client. Few of the clients that I worked on:

   Client:
   MasterCard International, Hindustan Unilever Limited, InterContinental Hotels Group, National Football League, BT (Cloud Compute), Viacom Inc, Genworth Financial, IPsoft (for Internal Infrastructure).

   Role and Responsibilities:

- Technical Lead (Cloud Platform) for British Telecom, Managing Cloud Environment based on Apache Cloud Stack and VMware.
- Ensuring 99.99% uptime of MasterCard Internet Infrastructure hosting real time Tier 0 Applications System used in Financial Transaction across the globe. Also managing their DNS Infrastructure.
- Working with MasterCard TRT (Technical Recovery Team) teams on production issues for Mission Critical Applications.
- Managing Hindustan Unilever Limited (HUL) Applications based on WebSphere Application Server (ND) and JBoss (For Application deployed on Amazon EC2).
- Fixing environment Security vulnerabilities per PCI compliance for HUL.
- Project work experience in Installation/Configuration and upgrade of Enterprise infrastructure including WebSphere/ JBoss Application Server and IBM/Apache Web Server.
- Level 2 (L2) responsibility for developing monitoring using Nagios.
- Automation using IPsoft proprietary tool IPAutomata, BASH.

4. **Organization:** NTT Data (formerly First Apex Software) *(1 August 2011 - 15 Dec 2011)*
   Designation: Software Engineer (Core Product Team)

   About Team:
   Customer Product Team is responsible for designing/customizing First Apex product. Primarily used technologies were Java, J2EE, WebSphere, SQL, PL/SQL and FTL.

   Role and Responsibilities:

- Member of development Team working dedicatedly in developing BFSI projects for Insurance based companies which involves sector like Motor Insurance, General Insurance and covers the full cycle of insurance operations from point of sale right through to the general ledger.
- Application development using FTL (Free Text Markup Language) and J2EE.
- Database used Oracle 9i with Application Server WebSphere Application 6.

Certification and Training

- **Red Hat Certified Engineer (RHCE)**
  Certification Number: 805010137051739

- **VCE - Converged Infrastructure Associate**
  Certification Number: VCE-CIA0001957

- **Rack Space CloudU Certified**
  Certification Number: a04275f1-db84-493a-a171-6024ae58a6b0

Education

Standard	Year	Score	Percentage	School/College/University
X - CBSE	2004	365/500	73.0	Kendriya Vidyalaya No.2 Golconda Hyderabad, AP
XII - CBSE	2006	398/600	66.3	Kendriya Vidyalaya No.2 AFS Hindon, Ghaziabad, UP
B.Tech - CSE	2007-2011	3864/5000	77.3	Uttar Pradesh Technical University

Declaration

I solemnly declare that the above information is true and correct to the best of my knowledge. I understand that if any information given above is found false/incorrect, my candidature is liable to be rejected.

Date:
Place: Bangalore   Yogesh Kumar Sharma