



Summary: Working as **DevOps/SRE Lead/ Thought Process leader** for fortune **500 top 5th organization Optum Global Solutions (UHG) reporting under office of CTO**, I do have **‘15 corporate awards & nearly 11+ years’** of experience in infra domain. I do have direct experience to work from **small startups to fortune 500**.

My GitHub Contributions

[My GitHub Infra Repositories](#)

[My Python Repositories](#)

Major Achievements in past

- ❖ Design & developed 5 world class **DevSecOps/cloud platforms** ([Optum Health Care Cloud Platform](#) [CERN cloud infrastructure](#) [Ericsson telco cloud manager](#) [Adverity DataTap](#) [Lufthansa Open Api Cloud platform](#))
- ❖ Recruited & mentored **DevOps, Clouds, SRE teams’ (10+ Team members) right from scratch for 5 big IT Major organizations.** (TCS, HCL, Ericsson, Nagarro, UHG (United Health Care Group)).
- ❖ Simultaneous management of **10+ Kubernetes Clusters, EKS, Azure Kubernetes Service & Pivotal container Service (PKS), OpenShift & Tanzu Stack. Hosted Entire Infra with terraform for many organizations.**

Check My Sample General-Purpose Python apps on Heroku

[Explore Your Dataset](#)

[Detect The Language from symbols](#)

My Blogs

[PYTHON: System Engineering FINITE STATE MACHINE \(FSM\)](#)

[PYTHON For System Programming—Part 2](#)

[Spark Streaming with Twitter](#)

[PYTHON for System Programming—Part 1](#)

[Python System programming Part 3](#)

My Publication

[“Construction Industry using AI approach with Multi Attribute decision making”](#)

Technical Skill Set

Infrastructure as Code Expert, Cloud Computing (AWS, Azure, Open stack) since 2011, Containers (Docker, openshift, Kubernetes, Pivotal Kubernetes Services, EKS, AKS, ECS), DevOps, Site Reliability Engineering (since 2015) , CI/CD (Jenkins(since 2006)/ GitHub Actions), Automation, IAAS, PAAS, SaaS, IAC (Terraform, terragrunt) , CAC (chef, ansible), Python Programming (Django, Fastapi, Socket api), Microservices, Nodejs , Spring Boot, Cloud Native Architecture, Supercomputing , Serverless Computing, Tooling & Automation, Proxy, Reverse Proxy, BIG IP, GTM, LTM, Build Release, Configuration management, System Administration, Big Data. Cloud principles and datacenter design, UNIX based OS fundamentals, http and related technologies, Deep knowledge of configuration management systems e.g. ansible & chef, networks and low level network protocols, Experience with Content Delivery Networks, Experience with server application monitoring & visualization (ELK, Prometheus etc), Experience with server-side automation scripting, Experience with data layer technologies (RDBMS/SQL, NOSQL/key-value, etc), Security knowledge and risk assessment ability.

Specialization

Large Tech-Transformations, Organization wide infra-Tools/ Cloud Operations, cloud-infra migrations, Tech landscape rationalization, Infrastructure modernization, large scale Infra platform development, Enterprise-wide large Tech transformations, Organization wide IT-spend rationalization/TCM/TCO optimization, Capacity planning.

Managerial Skill Set

Agile Process Delivery, SRE Budgeting (Toil Budget/error budget), On call resource management, resources & assets management, Strategies & Operations Management, Inner Sourcing leadership development, stake holder management.

Education

M-Tech Software System, B-Tech (ECE), Post Graduate Certification Strategies & Operations Management (IIM Kozhikode), PG Diploma in Advanced Computing (from CDAC Bangalore), Scaled Agile & AWS Certification.

Timing zone: CET, IST, EST, CST

My Roles & responsibilities in Present & Past

- ☞ Successfully Managed manage whole **Organization wide infra as a code** right from aws to Jenkins to eks creation, **azure Kubernetes services cluster creation, RBAC roles, Service accounts, policies, ECS, ECR etc in terraform** itself.
- ☞ Expertise in provisioning complex resources with ansible, chef & even with terraform.
- ☞ Established **SRE/CRE/DevOps/Clouds COE/Release Engg teams for 5 Organizations** named as UHG, Nagarro, TCS, Ericsson and HCL right from scratch & provided leadership to achieve common goals.
- ☞ Participate on **call Rotations, Release deployments, Issue Postmortems, relevant Automation, framing SLA/SLO/SLI/KPIS, error budgeting, defining Availability, preparing runbooks.**
- ☞ Established **Organization wide AD connected RBAC AKS clusters with managed identities PODS.**
- ☞ **Organization wide Office365 Administration.**
- ☞ **Design and implement - deployment, operations, and manageability of highly efficient solutions for security, resilience, performant, networking, availability,** Blue-green SaaS deployments.
- ☞ Infra patching automation and life-cycle management with zero downtime patching, System dashboards and alerts & monitoring for a large footprint multi-region, multiple customer SaaS and edge deployments.
- ☞ Lead end-to-end operations of mission-critical SaaS system applications supporting high volume systems with high throughput and low-latency.
- ☞ **Drive system readiness and hardening** to enable significantly high throughput for peak season volumes 5x the regular volumes. **Generate** oversight on key operational metrics – Infra health metrics, MTTD, MTTR.
- ☞ Developed large scale Infra structure platforms, handled large scale infra structure modernization, large scale cloud migration, **managed people, process & tools for managing availability, latency, scalability, and effectiveness of Citizens applications development by instilling engineering reliability into our development life cycle with a focus on fault tolerant** approaches.
- ☞ Thoroughly understand complex business and technical issues and influence decision making at all levels of the organization without formal reporting structure authority.
- ☞ Effectively **managed-reorganized error budget, Toil budget for my SRE Team members. Effectively managed all sorts of Incidents within SLI limits. Manage on-call rotations** and provide inputs to your team and partners to sustain SLAs & document root cause analysis reports and develop standard operating procedures. Managing infrastructure requirements and optimizations based on app performance and user load scenarios.
- ☞ Establish & Provide leadership and managerial coaching to Cloud, DevOps & SRE management team. Managed on-call & rotational support thereby managing 24*7*365 support. Deep understanding of internet packets traversing e.g. **from System->Switches->Router->DNS throughout the OSI Model.**
- ☞ Automated incident management with logging/alerting implementations using **Splunk and ELK stack** Enterprise **APM implementation using Dynatrace, AppDynamics, and NewRelic**
- ☞ Effectively communicate in and among the other organizations on various standards, services and system metrics. Other organizations include but not limited to Customer Care, Engineering, DevOps, OPS, Marketing, and Sales.
- ☞ **Drive process and run book documentation to minimize mean-time-to-repair (MTTR)** on network events, including processes on field dispatches, internal and external escalations, and vendor engagement.
- ☞ Interface with Dev/QA/OPS teams to identify root cause analysis and re-instrument triggers to prevent future network degradation and outages.
- ☞ Cultivate a culture of feedback to ensure that teams and individuals are collaborative, purposeful, and high performing.
- ☞ Perform application and web site troubleshooting to quickly resolve the issues per documented procedures.
- ☞ Responsible for availability, latency, performance, efficiency, change management, monitoring, emergency response, and capacity planning.
- ☞ Automated report generation using python to provide insights into customer trends and product feedback. Database clustering and replication management. Metrics, monitoring and on-call alert management.
- ☞ Manage the implementation, maintenance and enforcement of effective industry standard processes and policies within our QA, DEV and Production environments.
- ☞ Partner with Architecture teams to provide the best technology recommendations/solutions for business-critical processes.
- ☞ Involved in the design process with Apps Dev, Cloud Platform, IT Performance, InfoSec teams to implement scalable, reliable, and secure solutions.
- ☞ Manage engineers working with the engineering teams on our back-end services like our Hadoop, HDFS, Memcached, Redis, Kubernetes, AWS, Java, Linux, etc.
- ☞ Troubleshoot issues across the entire stack: hardware, software, application and network.
- ☞ Represent the SRE organization in design reviews and operational readiness exercises for new and existing services
- ☞ Common security issues and mitigation strategies.
- ☞ Developed one click workflow by generating immutable infra with agentless deployment on bare metal servers & on clouds with **Jira->Git->Jenkins->Nexus3->Terraform->AWS->Ansible-> Docker integration.**

- ☞ Contributed to tooling, automation, and system engineering efforts, freeing ourselves and others from day-to-day toil.
- ☞ Work with different teams to define the proper product architecture on AWS based on legacy system and future business goals. Build and maintain highly available development, test and production systems.
- ☞ Create and enhance application and infrastructure monitoring. Develop cost optimization strategies. Assist in the architecture, design, implementation, and lead AWS public cloud build (connectivity, network, security, containerization, monitoring).
- ☞ Automate infrastructure provisioning to standup servers, install software and applications.
- ☞ Manage storage, compute efficiency, and optimization activities, including evaluating the configuration of compute size, storage solutions, and other services (network services, automation, and load balancing).
- ☞ Assist with Integrations with SaaS systems. Assist during all BCP/DR (Business Continuity / Disaster Recovery) activities.

❖ WORK EXPERIENCE IN CHRONOLOGICAL ORDER

Organization: UHG (on Payroll of **JustAdavanceTechnology**)
Infra Architect

Location: Remote India (May 2018 – Present)

Project Name: [Optum Health Care Cloud Platform](#)

Roles & responsibilities:

- ☞ Ownership of **reliability, up time, system security, cost, operations, capacity, and performance-analysis, implement IaC (Infrastructure as Code) and CaC (Configuration as Code) practices** within Organization.
- ☞ Manage a team of Engineers of different streams like SRE, Data, Cloud COE & DevSecOps etc.
- ☞ Run the production environment by monitoring availability and taking a holistic view of system health for **nearly 10+ Clusters** & multiple applications. Simultaneous management of **10+ Kubernetes Clusters, EKS, Azure Kubernetes**
- ☞ Build software and systems to manage platform infrastructure and applications, **improve reliability, quality, and time-to-market of our suite of software solutions.**
- ☞ Extending the capabilities into Grafana, Elastic APM, and ongoing partnership with the Enterprise SRE and Monitoring organizations.
- ☞ Responsible for **Organization wide CI/CD, Integrated test automation, Tooling automation, Inner sourcing development, collaboration, product capability sharing automation, version control & establishing inner sourcing culture thereby increasing the overall efficiency of engineering teams.**
- ☞ Carry operational responsibility for shift scheduling, maintain Organization wide DevSecOps/ Cloud migration (**public/private/Kubernetes/OCP**), **TCM/TCO/IT Spend Optimization, Platform development** fostering a customer-focused environment.
- ☞ Ensuring the repeatability, traceability, and transparency of our infrastructure automation. Create and maintain monitoring technologies and processes that improve the visibility to our applications' performance and business metrics and keep operational workload in-check.
- ☞ Spearheading the Infra development of Optum Health Care Cloud Platform with a team of cross functional members whereby involving myself in planning, designing, architecting & carrying out the development activities for Optum internal cloud platform.
- ☞ Strategizing, designing, and implementing highly efficient solution on Public Cloud (**Amazon Web Services, Azure or GCP**), **Private or Hybrid** cloud for security, resilience, performant, networking, availability, Blue-green deployments in context of business application.
- ☞ Responsible for maintaining Cloud COE, DevOps COE, APM & SRE Teams.
- ☞ Responsible for maintaining the technological landscape of organization to sync with organization guidelines, carrying out digital transformations, Cloud migration & keeping uptime of the 20+ applications.
- ☞ Responsible for preparing Infra product strategies, maintaining product backlog, identify new features, participate in PI planning, carrying out code reviews, preparing high level -low level plans, participate in MVP demos, maintain time boxed releases, governing over all developmental & testing lifecycle.
- ☞ Reduced budget during over 45% and streamlined development and release process.

Nagarro.com

Gurgaon India (Feb 2017-April 2018)

Architect Technology / Software development Manager

Project name: [Lufthansa Open DevOps Cloud platform](#)

I have been working on Nagarro payroll for client Lufthansa. I have participated in the **development of Lufthansa cloud platform & it's Open Api system (Lido4D)** which is consumed across the world. My roles & responsibilities were including but not limited to:

- ☞ I was responsible for **api driven DevSecops, SRE Practices, integrations, schedule delivery, manage & monitor the development pipeline.**
- ☞ Measure and optimize system performance, with an eye toward pushing our capabilities forward, getting ahead of customer needs, and innovating to continually improve.
- ☞ Provide primary operational support and engineering for multiple large, distributed software applications

- ☞ Extending the capabilities into Grafana, Elastic APM, and ongoing partnership with the Enterprise SRE and Monitoring organizations.

Ericsson (Absorbed from vendor HCL)

Gurgaon India (Aug 16-Feb 17)

Solution Architect / development Manager

Project name: [Ericsson cloud manager](#)

Responsible for defining & development of **Ericsson telco cloud solution Ericsson Cloud Manager**

- ☞ Established **DevOps as a Services model**. Established continuous pipeline for CI/CD. Automated Build Pipeline & environment management. Work on a 6 – 8-person DevOps team developing and maintaining infrastructure for Ericsson Cloud Manager.

HCL (Deputed to Ericsson)

Gurgaon India (Feb 2015-April 2018)

Consultant

Project name: [Ericsson cloud manager](#)

Same as listed above. I was working with Ericsson on HCL payroll until I was absorbed by Ericsson.

Tata Consultancy Services (Deputed to CERN LABS)

Gurgaon India (April 2011-Jan 2015)

Architect Technology / development Manager

[CERN cloud infrastructure](#), [Adverity DataTap](#), [BookMyShow.com](#)

Establish Configuration management as practice.

- ☞ Work as Clear Case Admin along with SVN & Clear quest administrator.
- ☞ Design & Developed IAAS cloud platform Adform (large European Ad distributor) from Norway, served as Lead Architect Engagement responsible for client engagement, platform design, architecture & development, .
- ☞ Played key role in cloud migration of web & mobile based platform [BookMyShow.com](#)

IBM India Pvt Limited

Gurgaon India (Mar 2011-April 2012)

Application Developer

Project name: **DBS Bank**

- ☞ Establish organization wide CI/Cd using Cruise control/Jenkins & automated test pipeline
- ☞ Worked as Application developer for Automation & ClearCase Admin for Java development activities for Development Bank of Singapore.

NDS Service Pay TV Tech Pvt Limited

Bangalore India (March 2007-March 2010)

CM Engineer

- ☞ Establish organization wide CI/Cd using Cruise control/Jenkins & automated test pipeline. Development of make files & build tools & automation.

Sequence IT solution

Delhi India (June 2004- Sep 2006)

Software Developer (Java, C, C++)

Tool & Technologies I worked:

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|-----------------------|--|
| Clouds & Containers | AWS, Azure, Open stack, Docker, Kubernetes, Pivotal container Services, Open-shift Container Platform, Terraform |
| CI Tools | Jenkins, Team city, Cruise Control, GitHub Actions |
| CM Tools | Chef, Ansible, IBM Urban code, IBM U Release |
| Version Control | SVN, Git, Bitbucket, Gitlab, IBM ClearCase, PVCS |
| Requirement Gathering | Jira, IBM Rational RDNG |
| Code Analysis | Crucible Fisheye, Gerrit, Sonar Qube |
| Testing | Jmeter, Selenium, Junit, Rational Functional Tester, IBM Rational Quality Manager |
| BigData | Hadoop, EMR, Firehose Kinesis, Firehose Stream |
| Monitoring & Logging | logstash, Prometheus, Grafana, Cadvisor, Graylog, Elasticsearch, ELK , SPLUNK |
| Middleware | Apache-Tomcat, JBOSS EAP, IBM WAS, IIS |
| Message Broker | A-MQ, Rabbit MQ, IBM WMQ, Kafka |
| Databases | MySql, Sybase, RDS, MongoDB, Redis, Kaha DB, RedShift, SQL |
| Programming | C, C++, Python, Perl, Java, Shell, Maven, Make |