Shyam Sunder Daggupati

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Senior Full Stack DevOps Engineer | Cloud & Automation Expert | Azure & AWS | Terraform | GitLab/GitHub CI/CD | Kubernetes | Java & Python

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SUMMARY:

Dynamic **Senior Full Stack DevOps Engineer** with **11 + years** of hands-on experience **designing, developing, securing, and automating multi-cloud platforms** across **Azure and AWS**. Progressed from **Java Full Stack Developer** to **Cloud and DevSecOps Architect**, combining deep software-engineering acumen with platform-level automation, observability, and compliance expertise.

Expert in **Terraform, Kubernetes (EKS/AKS), Docker**, and **GitHub / Azure DevOps pipelines**, delivering systems that are **secure, observable, and self-healing by design**. Proficient in **Java (Spring Boot 3, Microservices)** and **Python automation**, bridging development and infrastructure teams to deliver resilient, cost-efficient releases.

Delivered **HIPAA- and FedRAMP-aligned multi-cloud architectures**, achieving **45% faster deployments**, **35% shorter MTTR**, and **~ 30% lower cloud spend** through **policy-as-code**, **FinOps**, and **continuous compliance automation**. Embedded **DevSecOps controls (tfsec, Checkov, OPA Gatekeeper)** throughout the Agile / Scrum SDLC, enabling auditable and repeatable delivery pipelines. Recognized for driving cross-team collaboration, mentorship, and cultural adoption of modern DevOps and SRE practices enterprise-wide.

KEY EXPERTISE & TECHNICAL PRACTICES

- **Full Stack & Microservices Engineering:** Developed Java (Spring Boot 3) microservices and Angular / React front-ends; integrated RESTful APIs with AWS and Azure for high-performance, event-driven applications in finance and healthcare domains.
- **Infrastructure as Code (IaC):** Built secure, reusable Terraform modules and ARM templates enforced with tfsec, Checkov, and OPA Gatekeeper to prevent drift and ensure governance across environments.
- **CI/CD & GitOps Automation:** Architected pipelines via GitHub Actions, Azure DevOps, Jenkins, and ArgoCD supporting blue-green, canary, and auto-rollback deployments with policy and quality gates.
- **Containerization & Orchestration:** Orchestrated EKS, AKS, and OpenShift clusters using Docker and Helm; implemented RBAC, Network Policies, and Pod Security Standards for Zero-Trust runtime security.
- **Security & Compliance (DevSecOps):** Integrated Snyk, Trivy, SonarQube, Vault, and KMS into CI/CD workflows; automated vulnerability remediation and evidence collection for continuous HIPAA/FedRAMP compliance.
- **Monitoring & Reliability Engineering:** Established observability using Prometheus, Grafana, ELK, Datadog, and CloudWatch to achieve proactive SLA tracking and reduce incident recovery time by 35 %.
- **Automation & Scripting:** Created Python / Bash automation for provisioning, policy validation, and cloud security auditing; integrated Jira and Snyk APIs for real-time reporting dashboards.
- **Leadership & Agile Collaboration:** Led Scrum teams of Developers, SREs, and QA engineers to adopt IaC and GitOps practices; mentored peers on CI/CD design and resilience engineering, raising delivery velocity by 40 %.

HIGHLIGHTS OF IMPACT

- Architected multi-cloud CI/CD ecosystems powering secure, compliant, and resilient enterprise deployments.
- Reduced deployment cycles by 45 %, MTTR by 35 %, and manual compliance work by 50 % through end-to-end automation.
- Lowered cloud OPEX by ≈ 30 % using FinOps dashboards and governance policies.
- Drove DevSecOps culture adoption, embedding security scanning, observability, and cost governance into every release pipeline.
- Combined developer discipline with cloud automation to create a developer-to-DevOps transformation model replicated across teams.

EDUCATION

Master of Science   **Jan 2023 – Dec 2024**
Fitchburg State University, Fitchburg, MA, USA

Bachelor of Technology   **Jul 2008 – Apr 2012**
Jawaharlal Nehru Technological University, Kakinada, Ap, India

CORE COMPETENCIES / TECHNICAL SKILLS SUMMARY

Cloud & Platform Engineering
- Hands-on experience across **AWS (EC2, S3, RDS, EKS, Lambda, CloudFormation, IAM, API Gateway, SQS, SNS, WAF, KMS)** and **Azure (AKS, App Gateway, Key Vault, Azure DevOps Pipelines, Repos, Artifacts, Boards, ARM Templates, Functions, Container Apps)**.
- Working knowledge of **GCP (GKE, Cloud Build, Compute Engine, BigQuery)** for multi-cloud deployments.
- Expertise in **hybrid cloud integration**, **on-prem to cloud migrations**, and **multi-region DR automation** using **ExpressRoute, VPN, and Azure Site Recovery**.
- Implemented **FinOps governance**, **cost optimization** with **AWS Cost Explorer** and **Azure Advisor**, reducing OPEX by 30%.
- Designed architectures compliant with **HIPAA, FedRAMP, SOC 2, ISO 27001**, and **NIST 800-53** standards.

Infrastructure as Code (IaC) & Automation
- Extensive use of **Terraform (v1.x)** for modularized IaC with **remote state**, **Sentinel policies**, and **GitOps workflows**.
- Skilled with **AWS CloudFormation**, **Azure ARM Templates**, **Ansible (2.x)**, and **Helm (v3)** for environment automation.
- Implemented **policy-as-code** using **tfsec**, **Checkov**, **OPA Gatekeeper**, **Conftest**, and **Cloud Custodian** to enforce security baselines.
- Automated environment provisioning, compliance checks, and configuration drift detection via **Python**, **Bash**, and **PowerShell** scripts.
- Familiar with **Chef** and **Puppet** for legacy configuration management.

CI/CD & GitOps Automation
- Architected pipelines using **GitHub Actions**, **GitLab CI/CD**, **Azure DevOps**, **Jenkins (Groovy DSL)**, **Harness.io**, **Tekton**, **CircleCI**, and **TeamCity**.
- Implemented **blue-green**, **canary**, and **auto-rollback** strategies; integrated **SonarQube**, **Snyk**, and **Checkov** quality gates for pre-deployment compliance.
- Experience with **ArgoCD (2.x)** and **FluxCD** for GitOps-based Kubernetes deployments with **multi-environment promotions**.
- Proficient in integrating build automation, testing, and artifact management with **Nexus**, **JFrog Artifactory**, and **AWS ECR**.
- Familiar with **Harness**, **Bitbucket Pipelines**, and **AWS CodeDeploy** for release orchestration.

Containerization & Orchestration
- Managed **Kubernetes clusters (EKS, AKS, OpenShift)** implementing **RBAC**, **Network Policies**, **Pod Security Standards (PSS)**, and **OPA enforcement**.
- Built and deployed **Docker multi-stage builds** and **Helm charts** for microservices workloads, ensuring runtime security and consistent deployments.
- Implemented **GitOps deployments** via **ArgoCD** and **FluxCD**, and used **Karpenter**, **KEDA**, and **HPA/VPA** for dynamic scaling.
- Integrated **OpenTelemetry** for distributed tracing, observability, and performance optimization.
- Familiar with **Kyverno**, **OPA mutation hooks**, and **Kustomize** for policy-driven cluster management.

Security / DevSecOps / Compliance
- Embedded security scanning in CI/CD using **Snyk**, **Trivy**, **tfsec**, **Checkov**, and **SonarQube Cloud**.
- Implemented **Vault**, **Azure Key Vault**, and **AWS KMS** for secret management and encryption at rest/in-transit.
- Enforced **policy-as-code** using **OPA Gatekeeper**, **Azure Policy**, and **Cloud Custodian**, ensuring Zero-Trust enforcement.
- Automated vulnerability reporting via **Python API scripts**, integrating **Jira** and **ServiceNow** workflows.
- Achieved **HIPAA**, **FedRAMP**, and **SOC 2** readiness through continuous compliance pipelines and evidence automation.
- Integrated **Okta** and **Azure AD SSO** with MFA for centralized security tool access (SonarQube, Snyk, Rapid7).

Monitoring / Observability / Reliability Engineering
- Implemented full observability stacks using **Prometheus**, **Grafana**, **ELK (Elasticsearch, Logstash, Kibana)**, **Datadog**, and **AWS CloudWatch**.
- Developed **SLO/SLA tracking dashboards**, reducing MTTR by 35% and improving uptime.
- Automated incident response workflows using **Python**, **PagerDuty**, and **Slack alerts** integrated with **Prometheus** webhooks.
- Designed **chaos engineering** and **auto-remediation** scripts for resilience testing.
- Familiar with **Splunk**, **Nagios**, **Jaeger**, and **AWS X-Ray** for trace-based debugging.

Programming & Scripting
- Core: **Java 17/11/8 (Spring Boot, Spring Security, Spring Data JPA, Hibernate)**, **Python (API automation, credential rotation)**, **Groovy (Jenkins DSL)**, **Bash**, **PowerShell**.
- API Development: RESTful & GraphQL APIs, Microservices architecture (Spring Cloud, Flask).
- Familiar with **C#**, **Node.js**, and **PHP** for cross-language integration.

Frontend & Client-Side Technologies
- **Angular (v15/14/10/6/2)**, **React (Hooks, Redux)**, **TypeScript**, **JavaScript**, **HTML5**, **CSS3**, **Bootstrap**, **jQuery**, **XML/JSON**.

Databases & Data Services
- Relational: **Oracle 10g/11g**, **PostgreSQL (Aurora / RDS)**, **MySQL 5.7**, **MS SQL Server**.
- NoSQL / Streaming: **DynamoDB**, **Cassandra**, **Redis**, **Kafka**, **AWS SQS/SNS**.
- Tools: **SQL Optimization**, **Stored Procedures**, **PL/SQL**, **GraphDB**.

Build Systems & Artifact Repositories
- **Maven (3.x)**, **Gradle (6.x)**, **Ant**, **NPM**, **MSBuild**, **Nexus**, **JFrog Artifactory**, **AWS ECR** for build artifact storage.
- Automated SBOM and license compliance reports integrated into CI/CD pipelines.

Testing & Quality Engineering
- **JUnit 4/5**, **Mockito**, **Selenium**, **TDD / BDD frameworks**.
- Integrated **SonarQube** SAST scans and dynamic testing within CI/CD workflows.

Collaboration / Agile / ITSM
- Tools: **Jira**, **Azure Boards**, **ServiceNow (SNOW)**, **Confluence**, **Bridge Clarify**, **FixIt**, **HPSM**.
- Experienced in **Scrum ceremonies**: sprint planning, reviews, retrospectives, and release coordination.

IDEs / Servers / Operating Systems
- IDEs: **Eclipse**, **IntelliJ**, Spring Tool Suite (**STS**), Visual Studio Code (**VS Code**), **Postman**, **TOAD**.
- Application Servers: **Apache Tomcat**, **JBoss**, **WebSphere**.
- Operating Systems: **Windows**, **Linux**, **macOS**, **UNIX**.

EXPERIENCE

SENIOR DEVOPS ENGINEER, DOUBLENE, USA   Feb 2025 – Present

Release & Deployment Excellence
- Spearheaded release management for 10+ enterprise applications, designing scalable workflows using **GitHub Actions, Azure DevOps, Tekton**, **Harness (CI/CD + Feature Flags)** and **feature-flag frameworks** (LaunchDarkly), reducing release cycles by **42%** and achieving **99.98% deployment reliability**.
- Integrated Harness CD pipelines and feature flag rollouts for targeted deployments, enabling safer releases and reducing post-deployment incidents by 25%.
- Implemented **blue/green and canary deployments** with **Helm** and **ArgoCD**, automating rollback and environment promotion, enabling **zero-downtime** releases and 30% faster feature rollouts.
- Established standardized **artifact tagging**, semantic versioning, and cross-environment governance in **Nexus, Artifactory**, and **Azure Repos**, ensuring consistent build traceability and reproducibility.

Cloud Infrastructure & Scalability
- Engineered secure, multi-cloud architectures on **AWS, Azure, and GCP**, provisioning 200+ workloads via **Terraform v1.x**, **CloudFormation**, and **Ansible**, cutting manual setup time by **60%**.
- Led **on-prem to cloud migration** for legacy applications, applying **IaC governance** with **Sentinel policy sets** and **Terraform Cloud workspaces**, reducing drift incidents by 50% and OPEX by 28%.
- Built **multi-AZ, multi-region DR architectures** with health-check automation, ensuring **100% SLA adherence** for mission-critical microservices.
- Integrated **FinOps dashboards** with **Cost Explorer, Azure Advisor**, and **Datadog billing metrics** to monitor usage and optimize cloud spend.

DevSecOps & Compliance Enablement
- Embedded **Snyk, Trivy, Checkov, tfsec**, and **SonarQube** in pipelines, automating **SAST/DAST** checks and policy gates using **OPA Gatekeeper** and **Conftest**, achieving continuous **HIPAA/FedRAMP** compliance.
- Automated **secrets rotation** and key lifecycle via **Vault, AWS KMS, Azure Key Vault**, and **Python scripts**, eliminating manual credential exposure.
- Integrated **policy-as-code** controls through **OPA Gatekeeper, Sentinel**, and **Cloud Custodian**, ensuring real-time enforcement of CIS and NIST benchmarks.
- Orchestrated vulnerability management and compliance dashboards using **Jira APIs** and **ServiceNow CMDB**, reducing manual audit overhead by **35%**.

Monitoring, Observability & SRE Practices
- Built unified observability stacks using **Prometheus, Grafana, ELK, Datadog**, and **CloudWatch**, achieving **38% faster MTTR** and proactive anomaly detection.
- Defined **SLOs/SLIs** and auto-remediation runbooks via **Prometheus AlertManager** and **Slack/ServiceNow integrations**, improving uptime consistency to **99.95%**.
- Performed **chaos engineering** experiments using **Gremlin** and **LitmusChaos**, validating fault-tolerance of distributed workloads across **EKS/AKS** clusters.
- Deployed **OpenTelemetry tracing** and **FluentBit log shipping**, enhancing cross-cluster observability and trace correlation for microservice interactions.

Collaboration & Agile Enablement
- Mentored 15+ engineers (Developers, SREs, QA) on **GitOps (ArgoCD, FluxCD)**, **Tekton pipelines**, and **secure CI/CD** practices, increasing DevSecOps adoption by **40%** across teams.
- Partnered with audit, QA, and product stakeholders to implement **automated pre-production validations** and **feature flag rollouts**, cutting post-deployment defects by **30%**.
- Led sprint ceremonies, release retrospectives, and blameless post-mortems using **Jira**, **Azure Boards**, and **Confluence**, improving team velocity and collaboration maturity.

Highlights of Impact
- Reduced deployment lead time by **42%** and mean-time-to-recover (MTTR) by **38%** through full-stack CI/CD automation.
- Leveraged Harness Cloud Cost Management to auto-stop idle workloads and enforce budget policies, reducing non-production cloud costs by 20%.
- Achieved **continuous HIPAA/FedRAMP compliance** with embedded DevSecOps controls and automated audit evidence generation.
- Lowered **multi-cloud OPEX by 28%** via FinOps governance and infrastructure right-sizing.
- Maintained **99.95%+ uptime** across production workloads using advanced observability, SRE automation, and multi-region resilience.

Environment
AWS (EKS, Lambda, S3, RDS, CloudFormation, IAM, KMS) | Azure (AKS, App Gateway, Key Vault, Azure DevOps) | GCP (GKE, Cloud Build) | Terraform v1.9.x | Ansible 2.x | GitHub Actions | Jenkins | Tekton | FluxCD | Harness | ArgoCD | Vault

| OPA Gatekeeper | SonarQube | Snyk | Trivy | Checkov | Prometheus | Grafana | Datadog | ELK Stack | CloudWatch | Docker | Helm | Python | Bash | Jira | ServiceNow | Agile/Scrum

LEAD DEVOPS ENGINEER, PR DEPT., GO., AP, IND   Apr 2018 – Dec 2022

CI/CD Architecture & Pipeline Automation
- Designed and implemented **enterprise-scale CI/CD pipelines** using **Jenkins 2.x, Azure DevOps, and GitHub Actions**, automating build, test, and deployment workflows for over 50+ Java, Python, and containerized microservices — reducing deployment errors by **45%** and release cycles by **35%**.
- Created **reusable pipeline templates** for Spring Boot microservices, APIs, and data workloads, integrating **SonarQube**, **Snyk**, and **Checkov** scans to ensure continuous quality and compliance gates before production rollout.
- Integrated **blue-green** and **canary deployment models** in pipelines with automated rollback capabilities, achieving **zero-downtime deployments** for mission-critical e-Governance applications.
- Implemented **artifact versioning** and **promotion policies** in **Nexus/Artifactory**, improving build traceability and dependency governance across environments.
- Built **GitOps-driven workflows** linking **GitHub Actions → ArgoCD → Kubernetes**, providing declarative deployment automation for stateful and stateless workloads.

Infrastructure as Code (IaC) & Cloud Provisioning
- Automated multi-cloud resource provisioning across **Azure, AWS, and OpenStack** using **Terraform 0.14+, Ansible 2.x, and ARM templates**, reducing provisioning time by **40%** and enforcing configuration consistency.
- Managed **OpenStack clusters** (Nova, Neutron, Glance, and Keystone) using **Kolla-Ansible**, enabling high availability and scaling across 100+ compute nodes supporting containerized workloads.
- Developed **Terraform modules** for VMs, VPCs, IAM roles, and storage buckets; integrated IaC with **Ansible Tower** for post-provision configuration management and drift detection.
- Implemented **infrastructure blueprints** and **state management** using **Terraform Cloud workspaces**, establishing version-controlled, compliant infrastructure baselines.

Kubernetes & Container Orchestration
- Containerized legacy Java and Python applications using **Docker multi-stage builds**, achieving 60% smaller image sizes and faster deployments.
- Administered **EKS, AKS, and OpenShift** clusters, enforcing **Pod Security Standards (PSS)**, **RBAC**, and **OPA Gatekeeper** policies for Zero Trust compliance.
- Automated **Helm chart packaging**, release versioning, and cluster rollouts using **ArgoCD GitOps**, reducing manual deployment errors by 50%.
- Enabled **auto-scaling** (HPA/VPA) and **node affinity rules**, optimizing resource utilization during peak workloads.
- Integrated **Prometheus + Grafana dashboards** and **FluentD → ELK Stack** for observability and container log aggregation.

DevSecOps & Compliance Enablement
- Embedded **Snyk**, **Trivy**, **SonarQube**, **Checkov**, and **tfsec** scanners into CI/CD pipelines, enforcing **policy-as-code** and identifying vulnerabilities early in the SDLC.
- Integrated **Vault**, **Azure Key Vault**, and **AWS KMS** with pipelines for automated secret rotation and secure credential injection.
- Established **compliance-as-code frameworks** aligned with **HIPAA**, **CIS**, and **NIST** benchmarks, reducing manual compliance audit time by **50%**.
- Configured **SSO (Okta, Azure AD)** with MFA enforcement for pipeline tools (SonarQube Cloud, Snyk, Rapid7), ensuring centralized identity control and secure access.
- Automated vulnerability scan scheduling and reporting via **Python + REST APIs**, generating Jira and ServiceNow tickets automatically for remediation tracking.

Monitoring, Observability & SRE Practices
- Built a **centralized monitoring stack** with **Prometheus, Grafana, ELK, CloudWatch, and Datadog**, providing unified observability across hybrid workloads.
- Reduced **MTTR by 35%** by implementing **alert automation** and **on-call runbooks** integrated with **Slack and ServiceNow** for rapid escalation.
- Established **SLIs/SLOs** for application performance and availability; conducted monthly **post-incident reviews** and integrated automated RCA tracking into CI/CD reporting.
- Created **FinOps dashboards** correlating cost, usage, and performance data, optimizing resource consumption and reducing cloud OPEX by **30%**.

Leadership, Collaboration & Agile Enablement
- Led cross-functional Agile teams of 8–10 engineers (Developers, SREs, and QA), mentoring them in **GitOps**, **IaC**, and **secure CI/CD design**, increasing DevOps adoption by 40%.
- Partnered with Application, Security, and Infrastructure teams to streamline **release governance**, **change control**, and **incident workflows** — ensuring consistent uptime and compliance.

- Delivered **training workshops** on Terraform, Kubernetes, and Jenkins pipeline design, establishing reusable playbooks and internal DevOps documentation.
- Guided the **modernization of legacy Java monoliths** into **Spring Boot microservices** deployed on **Kubernetes**, accelerating release velocity and improving maintainability.

Highlights of Impact
- Built a **federated CI/CD ecosystem** integrating Jenkins, Azure DevOps, and GitHub Actions — achieving 99% deployment success rate and 45% faster release cycles.
- Achieved **HIPAA and FedRAMP compliance automation**, cutting audit preparation time by half and embedding security gates directly in pipelines.
- Managed **OpenStack + Kubernetes hybrid workloads** supporting 10+ government e-services, maintaining 99.9% uptime through proactive SRE practices.
- Delivered cross-platform consistency across **AWS, Azure, and OpenStack** through Terraform + Ansible orchestration, ensuring fully automated, compliant infrastructure delivery.

Environment:
Azure, AWS, OpenStack, Terraform (v0.14+), Jenkins, Azure DevOps, GitHub Actions, Ansible Tower, Docker, Kubernetes (EKS/AKS/OpenShift), Helm, ArgoCD, Vault, Key Vault, KMS, Prometheus, Grafana, ELK, Datadog, Snyk, SonarQube, tfsec, Checkov, Python, Bash, Java (Spring Boot), PostgreSQL, Nexus, Jira, ServiceNow, GitHub/GitLab, Agile/Scrum.

CLOUD ENGINEER | PR DEPT., GO., AP | IND   Feb 2016 – Mar 2018
Cloud Architecture & Hybrid Integration
- Designed and implemented **multi-subscription Azure environments** with **VNets, subnets, NSGs, custom DNS zones**, and **App Gateways**, creating secure multi-tier architectures that reduced configuration drift by **40%**.
- Configured **site-to-site VPN** and **ExpressRoute connectivity** between on-prem VMware clusters and Azure workloads, enabling **hybrid continuity** with high availability and DR readiness.
- Performed **capacity planning** and **performance tuning** for **Azure VM Scale Sets**, **App Services**, and **Load Balancers**, improving resource utilization by **25%** across e-Governance applications.
- Developed **multi-region DR strategies** with automated failover and regular RPO/RTO validation using **Azure Site Recovery** and **Geo-Replication policies**.

Infrastructure Automation & IaC Enhancements
- Developed reusable **Terraform (v0.11)** and **ARM templates** to standardize provisioning of compute, networking, and storage resources across staging and production subscriptions.
- Automated **infrastructure deployments** through **Azure DevOps (VSTS)** pipelines using **YAML templates**, **PowerShell**, and **ARM automation**, cutting manual intervention time by **40%**.
- Implemented **configuration drift detection** via custom scripts and Terraform state validation, ensuring parity between environments.
- Created **PowerShell DSC** and **Ansible 2.x playbooks** for VM configuration, patch management, and compliance enforcement across **Windows and RHEL** servers.

Application Development & Cloud Modernization
- Transitioned from full-stack Java developer to cloud engineer by modernizing **Spring Boot 1.x / RESTful microservices** and **Flask (Python)** APIs for **Azure App Services** and **Function Apps**.
- Integrated **Spring Boot microservices** with **Azure SQL Database** and **Blob Storage**, enabling secure, serverless data pipelines.
- Developed **Angular 6 front-end modules** and integrated with backend APIs, enhancing UI responsiveness and real-time updates for citizen services.
- Used **Maven** and **Gradle** for build automation and **Jenkins** for CI/CD orchestration prior to full Azure DevOps migration.
- Designed **Node.js-based Azure Functions** for file uploads to **Azure Blob Storage**, demonstrating early serverless architecture adoption.

Monitoring, Reliability & Cost Optimization
- Centralized observability via **Azure Monitor**, **Log Analytics**, and **Splunk**, improving incident detection by **30%** and enabling RCA through metric correlation.
- Built **custom dashboards** for real-time performance monitoring of API latency, resource consumption, and application health.
- Implemented **cost optimization initiatives** through tagging, VM right-sizing, and auto-scaling rules, reducing idle cloud spend by **20%** without affecting performance.
- Established **SLIs/SLOs** and collaborated with QA and operations teams to maintain predictable service delivery for high-priority workloads.

Security & Compliance Automation
- Enforced **RBAC**, **Service Principals**, and **Managed Identities** for secure deployments.

- Integrated **policy-as-code validation** into pipelines using **Terraform compliance checks** and ARM template verification scripts.
- Embedded **Key Vault secret rotation**, **TLS encryption**, and **multi-factor authentication** for critical service accounts.
- Conducted **vulnerability scanning** and **patch reviews** using **Azure Security Center** and **Nessus**, achieving full HIPAA/FedRAMP readiness for critical applications.

Version Control, CI/CD & Collaboration
- Managed source code and IaC templates using **GitHub Enterprise** and **Azure Repos**, enforcing **GitFlow** and **pull request validation** policies.
- Created **CI/CD pipelines** in **Azure DevOps** integrating **unit testing (JUnit, Mockito)**, code coverage checks, and artifact deployments.
- Containerized early workloads using **Docker 1.12**, enabling consistent runtime environments across Dev, QA, and UAT.
- Trained and mentored junior engineers on **Terraform, Azure automation, and pipeline best practices**, reducing onboarding time and operational overhead.

Highlights of Impact
- Enabled the organization's first **hybrid cloud deployment** across on-prem VMware and Azure, improving scalability and DR readiness.
- Reduced deployment lead time by **40%** and infrastructure provisioning errors by **35%** through early IaC and pipeline automation.
- Modernized legacy Java-based citizen portals into **microservice-driven**, **API-first architectures** with integrated monitoring and compliance controls.
- Paved the way for full **DevOps adoption (Terraform + Azure DevOps + Ansible)**, establishing reusable automation standards later scaled across departments.

Environment:
Azure (VMs, VNets, App Services, Function Apps, SQL, Key Vault), ARM Templates, Terraform 0.12+, Azure DevOps, PowerShell, Ansible 2.x, Jenkins, GitHub, Java 8, Spring Boot, Python 3.x, Node.js, Angular 6, Docker, AWS (S3, Lambda, DynamoDB, CloudFormation), Azure Monitor, Splunk, Log Analytics, PostgreSQL, Oracle, REST APIs, Jira, Agile/Scrum.

SOFTWARE ENGINEER | PR DEPT., GO., AP | IND   May 2012 – Jan 2016

Virtualization & Infrastructure Engineering
- Engineered and maintained **VMware vSphere 5.1/5.5/6.0 clusters** using **vCenter Server, vMotion, HA, and DRS**, increasing platform availability and performance by **30%**.
- Standardized **VM templates, snapshots, and guest OS baselines** across **Windows Server 2012** and **RHEL 6**, reducing provisioning time by **30%** and ensuring environment consistency.
- Optimized **resource pools, affinity/anti-affinity rules**, and compute/storage allocation across **Dell EMC** and **HP ProLiant** servers, improving workload efficiency by **25%**.
- Developed **PowerCLI-based dashboards** for capacity planning and resource monitoring, preventing over-provisioning and bottlenecks during seasonal spikes.

Automation & Configuration Management
- Automated **VM lifecycle operations** (provisioning, patching, compliance) using **PowerCLI, Bash, and early Ansible 1.x** playbooks, reducing manual tasks by **40%**.
- Performed **P2V and V2V migrations** via **VMware vCenter Converter**, modernizing legacy workloads and cutting hardware costs by **20%**.
- Authored reusable **automation scripts** for datastore mounting, NIC setup, and policy enforcement, creating the foundation for future Infrastructure-as-Code adoption.

Monitoring, Observability & Incident Response
- Integrated **Nagios**, **vCenter alarms**, and **Python / PowerCLI scripts** for proactive host and VM monitoring, reducing anomaly detection time by **35%**.
- Tuned **ESXi performance parameters**, virtual NICs, and storage queue depths for improved I/O efficiency.
- Enforced **VMware hardening baselines**, patch compliance, and access control policies to maintain secure environments.
- Supported **critical incident RCA** for e-Governance workloads, implementing proactive alert scripts that cut downtime by **20%**.

Storage & Data Protection
- Managed **iSCSI/NFS datastores** and **VMFS 5 volumes**, enabling high-availability storage with **SAN multipathing (MPIO)**.
- Executed **vMotion** and **Storage vMotion** during maintenance windows for zero-downtime patching.
- Maintained **Veeam Backup & Replication** and **vSphere Data Protection (VDP)** jobs, validating snapshots and automating retention schedules for **100% recovery readiness**.
- Conducted **storage utilization audits** and performance benchmarking to maintain consistent IOPS and SLA targets.

Application Development & Full Stack Engineering
- Designed and developed **Java/J2EE enterprise modules** using **Spring MVC, Hibernate, and MyBatis**, optimizing database access through **PL/SQL stored procedures** and query tuning.
- Built **responsive web interfaces** with **JSP, HTML5, CSS3, JavaScript, AJAX, and jQuery**, ensuring dynamic user interaction and reduced page load times.
- Implemented **RESTful APIs** for citizen-facing e-Governance systems, enabling secure data integration between applications.
- Deployed applications on **Apache Tomcat**, **JBoss**, and **WebSphere**, managing builds via **Maven 3.x** and integrating early **Jenkins** CI pipelines.
- Collaborated in **Agile/Scrum sprints**, performing code reviews, testing with **JUnit**, and tracking user stories in **JIRA**.
- Introduced **Spring Security** and **Hibernate ORM** for user authentication and persistence layers, standardizing architecture across multiple modules.
- Developed **XML/XSLT-based transformations** for legacy system integration, maintaining backward compatibility during modernization.
- Contributed to **microservice prototypes** using **Spring Boot 1.x** and **Akka** concepts, experimenting with early **containerization (Docker 1.9–1.12)** and **REST-based communication** models.
- Collaborated on frontend enhancements using **Angular 2/4** and **TypeScript**, creating reusable UI components and integrating **REST APIs** with secure data handling.

Collaboration & Operational Excellence
- Partnered with application, QA, and infrastructure teams to standardize build pipelines and deployment validation, ensuring reproducible environments.
- Conducted **disaster recovery drills** and **failover simulations** aligned with internal SLAs, improving business continuity.
- Documented all infrastructure procedures, scripts, and development guidelines, forming the baseline for the organization's **DevOps adoption roadmap**.

Highlights of Impact
- Reduced environment provisioning time by **30%** and hardware costs by **20%** through virtualization and automation.
- Improved system uptime by **25%** and reduced MTTR by **20%** via proactive monitoring and scripted recovery.
- Delivered multiple **Spring MVC / Angular e-Governance applications** integrated with secure REST APIs and high-availability infrastructure.
- Pioneered the department's shift from manual operations to **script-driven infrastructure and CI/CD-ready Java development workflows**.

Environment:
VMware vSphere 5.1/5.5/6.0, PowerCLI, Bash, Ansible 1.x, Nagios, vCenter, Dell EMC, HP ProLiant, Windows Server 2012, RHEL 6/7, Veeam Backup & Replication, Python, MySQL, Oracle 10g, JSP, Spring MVC, MyBatis, Java 7/8, HTML5, CSS3, jQuery, Apache Tomcat, JBoss, Git, Agile/Scrum.