

Teja Vegesna

Senior Platform Engineer / Site Reliability Engineer

tejanvegesna@gmail.com | linkedin.com/in/tejavegesna | github.com/tejavegesna | credly.com/users/tejavegesna

CAREER SUMMARY

Accomplished Platform & Site Reliability Engineer with 11+ years of experience specializing in AWS cloud architecture, Kubernetes orchestration, GitOps, IaC automation, and enterprise CI/CD pipelines. Proven track record of scaling developer platforms, reducing cloud costs, and automating complex build/release systems across multi-cloud, federal/healthcare, and Web3 gaming environments. Comfortable operating in regulated environments (NIH/federal ATO, HIPAA-compliant pipelines, cloud.gov) as well as extreme-scale consumer events, and known for turning platform engineering into self-service products that engineering teams actually adopt.

- **Cloud & Orchestration:** Expertise in AWS (EKS, ECS, S3, RDS, Backup), Kubernetes, Helm, ArgoCD, Crossplane, and Terraform.
- **CI/CD & DevSecOps:** Deep experience modernizing pipelines (GitHub Actions, GitLab CI, Jenkins) and integrating automated testing & security scans.
- **Observability & Reliability:** Skilled in building multi-signal observability stacks (Prometheus, Grafana, Thanos, Loki, eBPF) with 24/7 on-call production support.
- **Automation-First Mindset:** Automate wherever possible to reduce manual toil and interrupts, minimize human error, and break down cross-team silos — improving developer velocity and operational reliability.

KEY CAREER HIGHLIGHTS

- Sustained 1.2M requests/second with zero downtime during a Super Bowl-driven NFT claim event that sold out in 45 seconds (Limit Break).
- Cut monthly CI/CD infrastructure spend 75% (\$60K → \$15K) by migrating Jenkins to GitHub Actions with ephemeral Kubernetes runners (Limit Break).
- Directed the cloud migration and federal ATO approval for the NIH Genetic and Rare Diseases (GARD) portal, serving 1M+ monthly visitors (Axle Informatics).
- Led cloud infrastructure for the MIDRC data curation framework, published in Nature Scientific Data, building HIPAA-compliant pipelines across NIH repositories (Axle Informatics).
- Answered 300+ federal security and compliance questions to achieve official cloud.gov platform clearance for NIH initiatives (Axle Informatics).
- 11+ years spanning Web3/blockchain gaming, federal/healthcare compliance, and enterprise BI infrastructure — with hands-on ownership from Linux administration through platform architecture.

EDUCATION & CERTIFICATIONS

- **Master's in Computer & Information Sciences:** Southern Arkansas University
- **Certifications:** ICA (Istio Certified Associate), CKA (Certified Kubernetes Administrator), CKS (Certified Kubernetes Security), AWS Certified Solutions Architect, AWS Certified SysOps Admin, AWS Certified Developer

TECHNICAL SKILLS

- **Cloud & Platforms:** AWS (EKS, EC2, ECS, S3, RDS, Aurora, Lambda, VPC, IAM, CloudFront, Route53, API Gateway, DynamoDB, Cognito, Kinesis, OpenSearch, ACM, CodeBuild, CodeDeploy, CodeArtifact, Systems Manager, Step Functions, WAF, Shield, Inspector, SSO, X-Ray, Device Farm), GCP, Kubernetes, Docker, Cloud Foundry (cloud.gov), Firebase, DigitalOcean
- **IaC & GitOps:** Terraform, OpenTofu, Crossplane, CloudFormation, Ansible, Chef, Puppet, Packer, Vagrant, Helm, Kustomize, ArgoCD, Argo Rollouts, Spinnaker, Scalr
- **CI/CD & Release:** GitHub Actions (ARC), GitLab CI, Jenkins (JCasc), Bamboo, Maven, Ant, Gradle, Fastlane, Applivery, game.ci, Nexus, Artifactory

- **Security & Networking:** Istio Service Mesh, Kong Ingress, Cert-Manager, Wiz, Cloudflare, External Secrets, Network Policies, DNS, DHCP, TCP/IP, Security Groups, ACLs
- **Observability & Data:** Prometheus, Grafana, Grafana Alloy, Thanos, Mimir, Loki, Tempo, CloudWatch, eBPF (Beyla), Sentry, FluentBit, YACE, PagerDuty, Nagios, Splunk, New Relic, Zabbix, Dynatrace, Elastic (ELK), Kafka, Kafka UI, Redis, Valkey, Superset, MySQL, PostgreSQL, MongoDB
- **Languages & OS:** Python, Bash/Shell, Go, Groovy, JavaScript, Node.js, C#, PowerShell, PHP, Java/J2EE, SQL, Linux (RHEL, Ubuntu, CentOS, SLES, Solaris)
- **Web/App Servers & Version Control:** Apache, Nginx, Tomcat, JBoss, WebSphere, WebLogic; Git, GitHub, GitLab, Bitbucket, SVN, Mercurial; VMware
- **Platform Config & Networking:** Jsonnet, ExternalDNS, Firebase Auth
- **Quality, Tracking & Collaboration:** JIRA, Confluence, SonarQube, Codecov, Bugzilla, IBM ClearQuest, Atlassian Suite administration

Limitbreak - Sterling, VA

Jun 2022 - Present

Senior Site Reliability Engineer / Platform Engineer

Limit Break is a blockchain and mobile gaming company pioneering the next generation of player experiences, blending Web3 mechanics and digital economies to build captivating worlds at the edge of interactive entertainment.

- **Extreme Scale & Traffic Engineering:** Architected load testing and infrastructure scaling for a high-profile Super Bowl commercial campaign, optimizing systems to sustain 1.2 million requests per second (RPS) during an NFT claim event that sold out in 45 seconds with zero downtime.
- **CI/CD Modernization & Cost Optimization:** Led a zero-downtime migration from legacy Jenkins (JCasc, Groovy, EFS/FSx) to GitHub Actions with built-in disaster recovery scenarios, using Runner Controller (ARC) on Kubernetes paired with Runs-On.com ephemeral runners — slashing monthly CI spend by 75% (from \$60K to \$15K/month) while eliminating job queues to drastically accelerate release cycles and feature launches.
- **Engineered On-Demand Ephemeral Environments:** Built a 1-click feature environment system using Crossplane, Terraform, Firebase and GitOps with Helm, allowing developers to spin up and tear down full end-to-end testing stacks instantly to shorten feedback loops and control cloud costs.
- **Developer Portal & Workflows:** Standardized organization-wide infrastructure delivery by building Backstage catalog services and modular GitHub Actions Reusable Workflows, and reduced onboarding time for new services by overhauling runbooks and documentation.
- **Automated Unity Game Delivery:** Architected containerized Unity build pipelines using GitLab CI, game.ci, and Docker, scaling cross-platform game compilation across distributed worker nodes.
- **Scaled Mobile Release Engineering:** Automated code-signing and profile management using Fastlane and Applivery, eliminating Apple's 100-device Ad Hoc deployment cap to enable seamless, enterprise-wide testing and streamlined Apple App Store / Google Play releases.
- **Real-Device QA Matrix at Scale:** Integrated AWS Device Farm with Appium and AltTester to automate real-device app testing under custom simulated conditions (location, network speed, localized app data).
- **Advanced Cluster Autoscaling:** Implemented Karpenter alongside KEDA (Kubernetes Event-Driven Autoscaling) to scale microservices based on custom queue/event metrics rather than traditional CPU/memory limits.
- **GitOps Delivery Pipeline:** Deployed ArgoCD and Argo Rollouts for continuous delivery, enabling progressive traffic shifting (canary/blue-green) and automated rollbacks for mission-critical applications.
- **Infrastructure Management & Governance:** Managed Terraform and OpenTofu IaC through Scalr using custom in-house wrapper modules to enforce infrastructure standards, RBAC, and policy compliance.
- **Data Platform Operations:** Maintained a native Druid Operator on Kubernetes to replace commercial Imply Druid, reducing licensing costs while maintaining analytics performance.
- **Unified Multi-Signal Observability:** Built an enterprise monitoring stack utilizing Prometheus, Thanos, Mimir, Loki, Tempo, and eBPF (Beyla) for zero-instrumentation profiling, visualized via unified Grafana dashboards.

- **Analytics Reliability via Edge Proxying:** Implemented custom Cloudflare-based Mixpanel proxies to bypass client-side ad-blockers and privacy extensions, recovering lost telemetry data accuracy for product analytics.
- **Zero-Trust Network & Security Enforcement:** Hardened Kubernetes workloads using Istio Service Mesh, Network Policies, External Secrets, and Wiz for agentless vulnerability management; managed secure remote access via Cloudflare WARP multi-profile VPN.
- **NFT Platform & Release Operations:** Maintained freenft.com and managed live NFT releases for Limit Break's DigiDaigaku collection family, one of the most recognized NFT collections in Web3 gaming.
- **Blockchain Protocol Infrastructure & Operations:** Operated and maintained the infrastructure supporting Limit Break's Creator Advanced Protection Suite (CAPS) — including the ERC721C/1155C Creator Token Standards, Payment Processor, TokenMaster, and Trusted Forwarder — enforcing on-chain creator royalties and secure asset transfers.
- **Incident Response & Postmortems:** Led incident response for production Kubernetes and platform services as part of a 24/7 on-call rotation, driving root-cause analysis and postmortems to reduce repeat incidents.
- **Cost & FinOps Governance:** Implemented AWS cost allocation tagging and Kubernetes namespace resource quotas, partnering with engineering leadership to track, forecast, and control infrastructure spend across teams.
- **Disaster Recovery & Backup Strategy:** Designed backup and recovery procedures for AWS RDS- and S3-backed services to protect production data and support business continuity.
- **Internal Documentation & Mentorship:** Authored architecture documentation and on-call runbooks for the platform team, and mentored engineers on Kubernetes, GitOps, and observability best practices.

ACI Infotech – Sterling, VA | Client: Axle Informatics

Aug 2020 – May 2022

Site Reliability Engineer / DevOps Engineer

Axle Informatics is a prominent bioscience and information technology company that serves as a major strategic partner to the National Institutes of Health (NIH), providing healthcare data science, translational research, and IT infrastructure support while partnering extensively with the National Cancer Institute (NCI) to accelerate cancer research through specialized data management, biomedical informatics, and clinical program support.

- **High-Traffic Federal Migration & Governance (GARD Portal):** Directed the cloud migration of the NIH Genetic and Rare Diseases (GARD) portal supporting 1M+ monthly visits; spearheaded federal security compliance reviews and operational risk assessments to secure full agency ATO approval with zero service disruption.
- **Nature-Published Platform Operations (MIDRC Data Commons):** Led cloud infrastructure and operational strategy for the MIDRC multimodal data curation framework (published in Nature Scientific Data), building interoperable, HIPAA-compliant data pipelines across NIH and federal data repositories.
- **Federal Compliance & Governance (cloud.gov):** Spearheaded a Proof of Concept (POC) for cloud.gov (Cloud Foundry PaaS) adoption; evaluated platform architecture and answered 300+ federal security and compliance assessment questions to achieve official platform clearance for NIH initiatives.
- **Cloud Migration & Hybrid Architecture:** Spearheaded the migration of legacy on-premises services to AWS EKS and serverless architectures, integrating hybrid-cloud capabilities and establishing standardized release procedures.
- **Kubernetes Orchestration & Modernization:** Packaged Kubernetes manifests into Helm charts, deploying Cert-Manager and Kong Ingress Controllers on AWS EKS while containerizing Node.js microservices.
- **Infrastructure as Code & Cost Savings:** Engineered reusable Terraform modules and Ansible playbooks integrated with Jenkins pipelines to automate infrastructure provisioning and K8s Autoscaling, significantly reducing GPU rendering costs.
- **CI/CD Infrastructure as Code:** Modernized legacy Jenkins setups by implementing Jenkins Configuration as Code (JCasC) and authoring modular, reusable Groovy pipeline libraries, standardizing build workflows across engineering teams and eliminating manual configuration drift.
- **Observability, Logging & Data Pipelines:** Administered Splunk and Nagios for real-time log analysis and infrastructure monitoring to reduce MTTR, while engineering custom Python ETL pipelines to aggregate, transform, and ingest multi-format server logs into Logstash and Elasticsearch (ELK).

- **Cross-Team Leadership & Governance:** Collaborated with 70+ cross-functional stakeholders, data scientists, and engineers across 3 teams to enforce Git branching standards, lead change management in Jira, and coordinate end-to-end product releases.
- **Custom Authentication Microservice:** Built a custom Node.js authentication application composed of multiple microservices in Docker, successfully deployed to production on AWS EKS.
- **SharePoint-to-JIRA Process Automation:** Designed a proof-of-concept ETL process using custom Java and Shell scripts to move data from SharePoint to JIRA, and used the Bitbucket, Jira, and Bamboo APIs to automate deployment of business-process-change tickets (with XML conversion) across dev, QA, and production environments.

Asteri Inc – Shreveport, LA

Apr 2018 – Jul 2020

DevOps Engineer

Asteri creates engaging entertainment products through unique data analytics technology. Its development and publishing platform gives studios insight into what players want, helping them build hit products from day one.

- **Cloud Migration & Containerization:** Spearheaded the modernization of legacy monolithic web applications (including primagames.com) into Docker containers on AWS (ECS, EC2, RDS, S3, EFS), while leading the repository migration from SVN to Git.
- **Infrastructure as Code & Cost Optimization:** Provisioned scalable AWS infrastructure using Terraform and Ansible playbooks, leveraging Python and Shell scripting to automate server configuration and eliminate redundant instances to reduce cloud costs.
- **CI/CD & Multi-Platform Build Automation:** Architected end-to-end Jenkins pipelines incorporating unit testing and code coverage gates for Java/Python backend services, while automating Unity3D mobile release cycles across iOS and Android using Fastlane for automated code signing, key management, and app store releases.
- **Data Pipelines & Database Administration:** Built real-time game analytics data lakes using AWS Kinesis, and deployed, monitored, and backed up large-scale MongoDB sharded clusters via MongoDB Ops Manager & Metabase for visualization of data.
- **DevSecOps & Agile Delivery:** Established standardized Git branching strategies, IAM security policies, and Jira-driven release management workflows to streamline deployments across QA and Production environments.
- **Public-Facing Website Hosting & DNS:** Hosted and managed public-facing web applications (including primagames.com) on Route53, handling DNS, load balancing, and CDN configuration for production traffic.
- **Git Repository Governance:** Owned the design and maintenance of Git repository structure, views, and access control strategies, coordinating branching and naming conventions across developer teams.
- **Agile Delivery Practices:** Participated in Agile ceremonies — user stories, iterative planning, estimation, and prioritization — aligning release engineering work with sprint cycles across Dev, QA, and Production.

Semantify – Chicago

Nov 2016 – Mar 2018

DevOps Engineer / Build & Release Engineer

Semantify is a BI tool powered by semantic search and cognitive technology, implemented as a suite of enterprise Java services, semantic indexes, and reporting modules delivered in an Agile Delivery environment.

- **Cloud Infrastructure Architecture:** Designed and deployed fault-tolerant, cost-effective AWS infrastructure utilizing EC2 instances, custom VPCs, and granular IAM policies to host enterprise Java search microservices.
- **CI/CD & Artifact Management:** Built and optimized automated CI/CD pipelines using Jenkins, Docker, and Bitbucket; packaged source code into deployable WAR and EAR artifacts via Maven and Ant for multi-environment deployments (DEV, SIT, QA, Prod).
- **Configuration Management & Test Automation:** Automated multi-server provisioning and environment configuration across Linux/Unix servers using Chef and Puppet, applying Test-Driven Development (TDD) principles to validate infrastructure recipes.
- **Observability & Monitoring:** Established enterprise monitoring and alerting frameworks by configuring AWS CloudWatch metric filters alongside Dynatrace to ensure continuous system health and availability.

- **Atlassian Administration & Agile Governance:** Administered the full Atlassian suite (Jira, Confluence, Bitbucket, Bamboo), managing PostgreSQL/MySQL database maintenance, workflow customizations, and Jira Portfolio roadmaps for cross-functional engineering teams.
- **Chef-Based Infrastructure Automation & TDD:** Bootstrapped and configured EC2 instances using Chef, authoring and testing Chef Recipes and Cookbooks with Test-Driven Development principles to keep server templates minimal and reliable.
- **Cloud Deployment Automation:** Automated cloud deployments using Chef, Boto3, and Fabric in combination with AWS CloudFormation templates, and used MCollective for parallel job execution across server clusters.
- **Application Server & Log Management:** Deployed Java/J2EE applications to Tomcat in an automated Agile CI process, configured Apache and NGINX web servers, and used Splunk and an ELK stack for log mining, monitoring, and data visualization.

Soft C Services – Hyderabad, India

Jan 2013 – Dec 2015

Linux Admin / Build & Release Engineer

Soft C Services is an IT solutions provider delivering customer-centric consulting and innovative market solutions to improve product quality for client businesses.

- **Linux Systems Administration & Hardening:** Administered and hardened enterprise Linux environments (RHEL, CentOS, SLES), managing security patching, user access controls, SAMBA cross-platform file sharing, and 24/7 on-call production support.
- **Operational Scripting & Automation:** Developed custom Shell and Perl automation scripts for cron job execution, resource monitoring, and server log parsing, significantly reducing repetitive system administration tasks.
- **Build Engineering & Quality Assurance:** Engineered Make-based automated build systems and integrated automated unit testing and code coverage tools into Maven and Jenkins pipelines to establish strict release quality gates.
- **Release Governance & Deployment:** Authored comprehensive software release management procedures, managed defect tracking in Jira, and coordinated User Acceptance Testing (UAT) to ensure production stability prior to final business sign-off.
- **Systems Monitoring & Security Administration:** Monitored CPU, memory, disk, and swap utilization across production servers, and created and maintained application objects, user profiles, and role-based system security policies.
- **Multi-Distribution Linux Support:** Designed, configured, and supported corporate Linux servers across RHEL 4.x/5.x, SLES 9, and CentOS 5.x, including software upgrades and troubleshooting of software-related issues.

SELECTED PROJECT DEEP DIVES

Super Bowl NFT Claim Event — Extreme-Scale Traffic Engineering (Limit Break)

Limit Break partnered on a national Super Bowl commercial campaign driving traffic to a live NFT claim event. I led load testing and infrastructure scaling ahead of the event, modeling worst-case traffic against the Kubernetes/EKS platform and tuning autoscaling, caching, and rate-limiting layers to handle a surge far beyond normal day-to-day load. During the live event, the platform sustained 1.2 million requests per second while the collection sold out in 45 seconds, with zero downtime or degraded performance. The exercise validated the Karpenter/KEDA autoscaling architecture built for the platform and directly shaped how Limit Break plans capacity for subsequent high-visibility drops.

CI/CD Platform Modernization — 75% Cost Reduction (Limit Break)

Limit Break's CI/CD system ran on a legacy Jenkins setup (JCasC, Groovy pipelines, EFS/FSx-backed storage) that had become expensive and slow, with growing job queues as the engineering org scaled. I led the migration to GitHub Actions using the Actions Runner Controller (ARC) on Kubernetes, paired with Runs-On.com for ephemeral, right-sized runners. The migration was executed with zero downtime for active development teams and cut monthly CI infrastructure spend from roughly \$60K to \$15K — a 75% reduction — while eliminating the job queues that had been slowing releases. The new platform also became the foundation for the reusable GitHub Actions workflows adopted across the org's other services.

NIH GARD Portal Migration & Federal ATO (Axle Informatics)

At Axle Informatics, I directed the cloud migration of the NIH's Genetic and Rare Diseases (GARD) Information Center portal, a public-facing resource supporting over 1 million monthly visits. Beyond the technical migration, the project required navigating federal security compliance processes: I led security compliance reviews and operational risk assessments to bring the platform through to a full Authorization to Operate (ATO) from the agency, with zero disruption to the live service throughout the process.

MIDRC Data Commons — Nature-Published Research Infrastructure (Axle Informatics)

I led cloud infrastructure and operational strategy for the Medical Imaging and Data Resource Center (MIDRC), a multimodal data curation framework whose methodology was published in Nature Scientific Data. The work involved building interoperable, HIPAA-compliant data pipelines connecting NIH and other federal data repositories, supporting a research platform used by data scientists and biomedical researchers across multiple institutes.

Creator Advanced Protection Suite (CAPS) — Blockchain Protocol Infrastructure (Limit Break)

Limit Break released the Creator Advanced Protection Suite (CAPS), a set of smart contract standards and tools — including the ERC721C/1155C Creator Token Standards, a programmable-royalty Payment Processor, the TokenMaster aptoken protocol, and the Trusted Forwarder attribution system — designed to let creators enforce on-chain royalties and control asset transfers. As part of the ops team, I owned the infrastructure supporting these protocols in production, ensuring reliable operation of the systems that enforce royalty compliance and secure transfers for the creator ecosystem built on top of CAPS.

Self-Service Developer Platform — On-Demand Ephemeral Environments (Limit Break)

Limit Break's engineering teams previously relied on shared staging environments for testing, creating bottlenecks and configuration drift as the team scaled. I designed and built a 1-click ephemeral environment system on top of Crossplane, Terraform, Firebase, and GitOps with Helm, letting any engineer spin up a full end-to-end test stack — application, dependencies, and data — on demand and tear it down automatically when no longer needed. The system shortened feedback loops for feature development and reduced the cloud spend associated with long-lived, underutilized staging environments, while the underlying GitOps workflows were later generalized into the reusable GitHub Actions workflows used for onboarding new services across the org.

Federal Cloud Adoption — cloud.gov Compliance POC (Axle Informatics)

Axle Informatics evaluated cloud.gov, a FedRAMP-authorized Cloud Foundry PaaS, as a potential platform for future NIH workloads. I led the technical side of the Proof of Concept, evaluating the platform's architecture against the program's operational requirements and working directly through more than 300 federal security and compliance assessment questions covering access controls, data handling, and audit requirements. The effort resulted in official platform clearance for NIH initiatives, giving the program a compliant, lower-overhead deployment option for future services.

Chef-Based Infrastructure Automation with TDD (Semantify)

At Semantify, I applied Test-Driven Development principles to infrastructure itself, writing and testing Chef Recipes and Cookbooks before applying them to production EC2 instances, which caught configuration errors before they reached live BI service environments. This TDD-for-infrastructure approach, paired with Boto3/Fabric-driven deployment automation and AWS CloudFormation templates, kept environments consistent across DEV, SIT, QA, and Production without manual server-by-server configuration.

Multi-Distribution Linux Administration at Scale (Soft C Services)

Early in my career at Soft C Services, I administered and hardened production Linux environments spanning RHEL 4.x/5.x, SLES 9, and CentOS 5.x for client businesses, handling security patching, SAMBA cross-platform file sharing, and 24/7 on-call support. This role built the systems-administration foundation — Linux internals, scripting, and release discipline — that later informed my approach to platform engineering and infrastructure automation.