BITTU KUMAR

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Delhi , India

Technical Skills

- **Cloud Platform**s: AWS (EC2, VPC, S3, EKS, ECS, ECR, ELB, Route53, CloudFront, Lambda, RDS, DynamoDB). **Azure** (VMs, VNET, AKS,ACS, App Services, Azure Storage)
- **Infrastructure as Code (IaC)**: Terraform,Ansible, CloudFormation,Arm template , Azure Bicep
- **CI/CD Pipelines**: Jenkins, ArgoCD,Azure Pipeline, Github Action
- **Containerization & Orchestration:** Docker, Kubernetes. helm, service Mesh(Istio & linkerD), carpenter
- **Version Control & Collaboration:** Git, GitHub, GitLab.
- **Monitoring & Security:** Prometheus, Grafana, OpenTelemetry, SonarQube,ELK, Trivy.
- **Scripting & Automation**: Bash Scripting, Python,
- Operating Systems: Linux (Amazon Linux, RHEL, Ubuntu).
- **Application Servers:** Nginx.Apache
- **Optimization & Problem-Solving:** Cost Optimization, Incident Resolution
- **Repository Management Tool :** Harbor, Sonatype Nexus , JFrog

Education

Master Of Computer Application(**MCA**)
Shri G.S. Institute Of Technology & Scence , Indore MP - 2021-2023

Professional Summary

Hand-on Multi-Cloud DevOps Engineer with **3.7 years** of experience in AWS and Azure cloud infrastructure, automation, and **CI/CD**.,Strong hands-on skills in Linux, Git, **Terraform**, **Jenkins**, **Docker**, **Kubernetes** (EKS/AKS), **Ansible**, and observability tools such as **Prometheus** and **Grafana**.

- Proven experience in delivering highly available, scalable, and cost-optimized cloud-native solutions.
- Extensive experience with AWS services including **EC2**, **VPC**, **EKS**, **ECS**, **Route 53**, **CloudFront**, **S3**, **IAM**, **Lambda**, **RDS**, and **ELB/ALB.**
- Hands-on experience with Azure services such as **Virtual Machines**, **VNET**, **AKS**, **App Services**, and **Storage** to build secure and reliable applications.
- Experienced in building and managing **Docker-based** containerized applications and orchestrating them using **Kubernetes** (EKS/AKS) for scalability and fault tolerance.
- Provisioned Kubernetes clusters on AWS using **Terraform** and deployed applications using **ArgoCD (GitOps)** with continuous health monitoring.
- Implemented **Blue/Green** deployment strategies using **Route 53** weighted routing to enable **zero-downtime releases**.
- Designed and implemented end-to-end **CI/CD** pipelines using **Jenkins,** reducing manual effort and ensuring consistent deployments across environments.
- Developed Infrastructure as Code (IaC) using **Terraform modules** with remote state management via **S3** and **DynamoDB** for reliable provisioning.
- Designed and supported disaster recovery strategies using **multi-AZ** and **multi-region** architectures, including automated backups, **snapshots**, and replication.
- Familiar with AWS Application Migration Service (**MGN**) and Database Migration Service (**DMS**) for cloud migration activities.
- Implemented **cost optimization** strategies such as **auto-scaling**, **right-sizing,** and resource optimization to improve cloud efficiency.
- Integrated monitoring and alerting using **Prometheus**, **Grafana**, and AWS **CloudWatch** to improve system reliability and reduce downtime.
- Implemented security best practices, including **IAM least-privilege access**, AWS **Secrets Manager**, and vulnerability scanning using Trivy and **SonarQube.**

Work Experience

TECEON SOFTWARE PVT LTD
Role : Devops Engineer - [august 2022 – Present]
Location : Delhi , India

PROJECTS

Project 1

PROJECT : INTEGRATED HEALTHCARE MANAGEMENT SYSTEM (IHMS)
ROLE: DEVOPS ENGINEER
TOOLS AND TECHNOLOGIES USED:

- Version Control: Git, GitHub
- CI/CD: Jenkins, GitHub Argocd
- Containerization: Docker, Kubernetes (EKS, Helm)
- Cloud Services (AWS): EC2, S3, RDS (MySQL), ECR, IAM, CloudWatch, Route 53, ALB
- IaC (Infrastructure as Code): Terraform
- Monitoring & Logging: Prometheus, Grafana, ELK Stack
- Other Tools: SonarQube (code quality), Nexus Repository, SNS & SQS (alerts/notifications)

DESCRIPTION:
The project aimed to build a cloud-native Healthcare Patient Management System for hospitals and clinics to manage patient records, appointments, prescriptions, and billing. The solution needed to be HIPAA-compliant, scalable, and available 24/7 to support thousands of concurrent users across multiple states in the US.
The DevOps team was responsible for building an end-to-end CI/CD pipeline, automating infrastructure provisioning using Terraform, containerizing applications with Docker, orchestrating deployments with Kubernetes, and implementing monitoring/logging to ensure zero downtime during deployments.

KEYS AND RESPONSIBILITIES :

- Designed and implemented CI/CD pipelines in Jenkins to automate build, test, and deployment processes with argocd.
- Containerized microservices using Docker and deployed them to Amazon EKS (Kubernetes cluster).
- Built and managed AWS infrastructure (EC2, RDS, ALB, S3, IAM) using Terraform (IaC).
- Configured SonarQube for static code analysis and Nexus Repository for artifact management.
- Implemented blue/green deployments and rolling updates in Kubernetes for zero-downtime releases.
- Integrated CloudWatch, Prometheus, and Grafana dashboards for real-time monitoring of application performance and system metrics.
- Set up ELK (Elasticsearch, Logstash, Kibana) stack for centralized logging and troubleshooting.
- Configured Slack notifications for build/deployment status and infrastructure alerts.
- Ensured application security and compliance by managing IAM roles, SSL certificates, and secret management (AWS Secrets Manager).

IMPACT:

- Reduced deployment time from 2 hours to under 10 minutes through full CI/CD automation.
- Increased system availability to 99.99% by leveraging Kubernetes scaling and ALB load balancing.
- Minimized infrastructure costs by 30% using Terraform automation and optimized resource provisioning.
- Improved developer productivity by 40% with automated quality checks, monitoring, and proactive alerting.

Project 2

PROJECT NAME: Digital Banking Platform
ROLE: DevOps Engineer

TOOLS AND TECHNOLOGIES USED:
Git, Jenkins, Docker, Kubernetes (AKS), Terraform, Azure (SQL DB, Blob Storage, Key Vault), SonarQube, Prometheus, Grafana, ELK, Nexus Repository, OWASP Dependency Check

DESCRIPTION:
Developed a secure and scalable digital banking system for fund transfers, bill payments, account management, and loan applications. The main focus was on security, compliance, and high availability since the platform handled sensitive financial data and had to meet PCI-DSS and GDPR standards.
The system was built using microservices, containerized with Docker, and deployed on Azure Kubernetes Service (AKS) for reliability and auto-scaling. CI/CD pipelines automated the release process, and strong monitoring/logging was implemented to ensure fraud detection, performance tracking, and zero downtime.

KEY RESPONSIBILITIES :
- Designed and maintained CI/CD pipelines in Jenkins to automate build, test, and deployment.
- Containerized microservices with Docker and deployed them on AKS with Helm charts.
- Automated cloud infrastructure provisioning (SQL DB, Blob Storage, AKS, Key Vault) using Terraform.
- Integrated SonarQube and OWASP Dependency Check to improve code quality and security.
- Used Nexus Repository for storing build artifacts and dependencies.
- Configured blue/green and canary deployments in AKS for zero-downtime releases.
- Set up Prometheus and Grafana dashboards for real-time performance monitoring.
- Implemented centralized logging with ELK for faster issue resolution and compliance auditing.
- Managed secrets, API keys, and SSL certificates securely with Azure Key Vault.
- Worked with developers and testers to speed up feedback cycles and ensure smooth deployments.

MY IMPACT:
- Reduced release cycle from monthly to weekly with automated CI/CD pipelines.
- Improved system uptime to 99.99% using Kubernetes scaling and health checks.
- Cut deployment time from 2 hours to under 15 minutes.
- Reduced infrastructure setup from 2 days to 1 hour using Terraform.
- Helped the platform scale to 500k+ concurrent users during peak hours.
- Strengthened application security by adding automated scans and secure secrets management.

Project 3

PROJECT NAME: SMART INSURANCE MANAGEMENT PLATFORM
ROLE: DevOps Engineer
TOOLS AND TECHNOLOGIES USED:
Git, Jenkins, Docker, Kubernetes (EKS), Terraform, AWS (EC2, RDS, S3, IAM, CloudWatch, ALB, WAF, Secrets Manager), SonarQube, Nexus, Prometheus, Grafana, ELK

DESCRIPTION:
Built a digital insurance platform where customers could purchase policies, pay premiums, and raise or track claims online. Since the application dealt with financial and health-related customer data, the focus was on security, high availability, and automation.
The platform was designed using microservices, deployed on AWS EKS, and supported with automated infrastructure provisioning, monitoring, and disaster recovery setup. The system had to manage sudden traffic spikes, such as during premium due dates or claim settlement periods, without downtime.

KEY RESPONSIBILITIES :
- Designed and implemented end-to-end CI/CD pipelines in Jenkins with build, testing, quality scans, and deployment stages.
- Containerized 15+ microservices with Docker and deployed them on EKS for better scaling and resilience.
- Automated provisioning of AWS resources (RDS for customer data, S3 for policy documents, ALB for traffic distribution, IAM for access control, and WAF for security) using Terraform.
- Integrated SonarQube in pipelines to enforce clean and secure coding practices.
- Managed build artifacts and dependencies with Nexus Repository.
- Configured Prometheus and Grafana dashboards for tracking latency, error rates, and resource usage.
- Set up ELK stack for centralized log collection, which reduced issue resolution time by 40%.
- Used AWS Secrets Manager for securing credentials, API keys, and certificates.
- Enabled blue/green deployments on EKS to release new features without downtime.
- Configured CloudWatch alarms for proactive alerts and used metrics for scaling decisions.
- Participated in disaster recovery planning, ensuring RDS backups and S3 data replication across regions.
- Worked closely with QA and security teams to meet compliance requirements like HIPAA and PCI-DSS.
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IMPACT:
- Reduced release cycle from weeks to days with fully automated pipelines.
- Improved uptime to 99.99% using Kubernetes auto-scaling and AWS ALB.
- Cut down infrastructure setup time from 7–8 days to a few hours with Terraform.
- Reduced mean time to resolve issues (MTTR) by 40% with ELK and CloudWatch alerts.
- Strengthened platform security with IAM roles, WAF rules, and Secrets Manager.
- Helped the platform support 50,000+ active customers and scale smoothly during peak premium cycles.
- Improved developer efficiency by introducing automated quality gates and artifact management.

PERSONAL DETAILS

Name: Bittu Kumar Thakur
Gender: Male
Date of Birth: 04 Nov 1998
Father's Name: Munkun Thakur
Nationality: Indian
Language Known : English, Hindi
Address: House No. 56 , Ward No. 05,Braham Asthan Kaluahi, Madhubani , Bihar - 847229

DECLARATION

I hereby declare that all the details furnished above are authentic and accurate to the best of my belief. I hereby declare that the information and details provided in this resume are correct and inclusive to the best of my knowledge and belief. The information shared in this resume is correct.