MANU P ANAND

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Portfolio: manupanand.com

AWS Certified DevOps Engineer - Professional

Professional Summary

DevOps/Cloud Engineer with strong hands-on experience in **Linux administration**, **infrastructure as code (Terraform)**, **configuration management (Ansible)**, and **CI/CD automation** using **Jenkins**, **GitHub Actions**, and **GitLab CI**. Proven ability to design, implement, and optimize cloud-native infrastructure on AWS, automate deployment pipelines, and streamline release processes. Achieved **up to 70% reduction in deployment time** and improved system reliability by **90%** through automation and observability best practices. Holds the **AWS Certified DevOps Engineer – Professional** certification. Adaptable and detail-oriented professional with strong problem-solving skills and a passion for scalable, secure, and efficient DevOps solutions.

Technical Skills

Cloud Platforms:	AWS, GCP, Azure
Infrastructure & Automation:	Terraform, Ansible, Bash, GitOps (ArgoCD)
CI/CD:	Jenkins, GitHub Actions, GitLab CI, ArgoCD, Spinnaker
Containerization & Orchestration:	Docker, Kubernetes, Helm
Serverless / Event-Driven:	AWS Lambda, GCP Cloud Functions / Cloud Run, Cloud Build
Monitoring & Logging:	Prometheus, Grafana, ELK Stack, New Relic, AWS CloudWatch/CloudTrail, GCP Monitoring & Logging
IAM & Security:	AWS IAM, GCP IAM, Kubernetes RBAC/Secrets, HashiCorp Vault, Istio, Trivy, SonarQube, firewalld, ufw, kubeaudit
Version Control & Collaboration:	Git, GitHub, Jira
Operating Systems:	Linux (Debian & RHEL),Windows
Programming & Scripting:	Python, Go, JavaScript, C
Web & API Development:	React, Node.js, Go-fiber, Django, FastAPI, REST, gRPC, WebSockets
Web Servers & Load Balancing:	Nginx, HAProxy
Databases & Datalake:	PostgreSQL, MongoDB, Redis, BigQuery
Build & Package Tools:	Maven, NPM, Pip, Uvicorn,make, cmake, Ninja, Bazel
Soft Skills & Team Leadership:	Problem-solving, Teamwork, Agile/Kanban, Leadership, Cross-team coordination, Represented R&D stakeholders in business meetings
Currently Learning:	CircleCI, Tekton, OpenShift, Azure.

Certifications (Full list: https://www.manupanand.com/certifications)

- **AWS Certified DevOps Engineer- Professional**
  Credential ID: 5ed917807c7f4c65a929a808fae9bd73, URL: https://aws.amazon.com/verification/
- **AWS Certified Cloud Practitioner**
  Credential ID: 861aa40ffaaf4956a3c31948e23472c8 , URL: https://aws.amazon.com/verification/

Projects and Experience

Full Projects List:https://tinyurl.com/full-projects-list

Serverless Data Pipeline Infrastructure Automation on GCP |(BLP Industry.AI):
GitHub Repo: https://tinyurl.com/gcp-terraform-infra

- Built an end-to-end **serverless data pipeline** on **GCP** using **GCS** → **Cloud Run** → **BigQuery**, enabling real-time IoT/energy data processing and reducing manual effort by **90%**.
- Provisioned and secured **GCP infrastructure** with **Terraform** (Cloud Run, IAM, VPCs, service accounts) and integrated **GitHub Actions CI/CD**, reducing misconfigurations by **70%**.
- Automated deployments with **Jenkins** using an event-driven pipeline (**Google Source Repos** → **Cloud Build** → **Pub/Sub** → **Cloud Functions** → **Jenkins**), cutting deployment time from hours to minutes and improving release reliability with **RBAC**.

MLOps Platform Infrastructure on AWS:
GitHub Repo: https://tinyurl.com/mlops-infra-aws

- Designed and implemented a complete **MLOps infrastructure platform** on **AWS Elastic Kubernetes Service (EKS)** using **Terraform** and **Ansible**, enabling reproducible, secure, and scalable ML environments from experimentation to production.
- Automated provisioning of cloud resources — **VPC, Subnets, IAM Roles, S3 Buckets, EKS Clusters (CPU/GPU Nodes)** — via Terraform modules with environment-based configurations (`dev`, `prod`).
- Configured post-provisioning setup using **Ansible** for OS hardening, deploying **HashiCorp Vault** for secrets management, and managing Kubernetes deployments with **Helm**.
- Deployed end-to-end open-source **MLOps stack**: **MLflow (Tracking)**, **DVC (Versioning)**, **Prometheus + Grafana (Monitoring)**, and **ClickHouse (Metadata Store)** inside EKS clusters.
- Established a secure, modular, and environment-driven **IaC architecture**, separating provisioning (Terraform) from configuration (Ansible), supporting scalable multi-environment operations.
- Implemented **AWS-native security practices** — IAM role-based access, private subnets, and centralized secret storage with Vault — ensuring compliance and data protection across ML workloads.

Self-Managed Kubernetes Cluster on AWS |(Contract):
GitHub Repo: https://tinyurl.com/selfmanaged-kubernetes

- Provisioned production-grade **Kubernetes cluster** (control plane + workers) on **AWS EC2 (RHEL)** using **Terraform, Ansible, kubeadm**, reducing manual setup by **80%**.
- Configured **Calico CNI, containerd, runc** and bootstrapped nodes with **kubelet/kubectl**, achieving **99.9% configuration consistency**.
- Secured token distribution using **HashiCorp Vault** and **SSH tunneling**, improving cluster security by **70%**.
- Used **GitHub Actions** for CI/CD-driven infra provisioning, ensuring **100% reproducibility** and reducing rollout time by **65%**.

GitOps Deployment for Ecommerce Microservices |(Contract):
GitHub Repo: https://tinyurl.com/ecommerce-helm-deploy

- Deployed a Helm-based ecommerce app (5+ microservices: **AngularJS, NodeJS, Python, MongoDB, MySQL, Redis, RabbitMQ**) using **GitOps with ArgoCD** for secure, declarative workflows.
- Enabled observability with **ELK, Prometheus, Grafana**, reducing **MTTD by 35%** and improving incident triage by **40%**.
- Achieved **100% automated rollouts/rollbacks**, zero-downtime upgrades, and increased deployment velocity by **50%**.
- Streamlined infra provisioning with reusable **Terraform modules**, improving efficiency by **45%**.

Real-Time Monitoring Alerting Stack on AWS |(Contract):
GitHub Repo: https://tinyurl.com/monitor-tools-elk

- Deployed **Prometheus, Grafana, ELK Stack** using **Terraform + Ansible**, reducing setup time by **70%** and ensuring **95% reproducibility**.
- Built real-time SLO dashboards and alerts (Slack/email), enabling **data-driven incident response** and reducing **MTTD by 40%** and **MTTR by 35%**.
- Managed secrets with **Vault**, eliminating **100% hardcoded credentials**.
- Configured **AWS Route 53** DNS and IAM-based access, reducing unauthorized access by **90%**.

Professional Experience Full Projects List: https://www.manupanand.com/projects

- **DevOps Engineer |BLP Industry.AI** 07/2025 – Present
  Bengaluru, India |Link: https://industry-ai.com/
  - Built production-grade **serverless data pipelines** on **GCP** (**GCS** → **Cloud Run** → **BigQuery**), reducing manual processing by **90%**.
  - Provisioned and secured **GCP infrastructure** using **Terraform** (Cloud Run, IAM, VPCs, service accounts) with **modular IaC patterns** integrated into **GitHub Actions CI/CD**, reducing misconfigurations by **70%**.
  - Automated deployments with **Jenkins** in an event-driven pipeline (**Google Source Repos** → **Cloud Build** → **Pub/Sub** → **Cloud Functions** → **Jenkins**), cutting deployment time from hours to minutes and enforcing **RBAC**.
  - GitHub Repo: https://tinyurl.com/gcp-terraform-infra

- **Freelance Consultant DevOps Engineer (Remote)** 04/2023 – 07/2025
  Remote, Self-Employed — Fiverr
  - Migrated legacy monoliths to **AWS IaC** using **modular Terraform**, reducing provisioning time by **60%** and improving compliance.
  - Built and scaled **Kubernetes clusters** (kubeadm, EKS, Calico) with **ArgoCD + Helm**, enabling canary/blue-green deployments and **zero-downtime rollouts**.
  - Optimized **Dockerfiles** (30% image size) and developed custom **Helm charts**, accelerating delivery and reliability.
  - Centralized CI/CD pipelines with **Jenkins + GitHub Actions**, integrating Docker, Helm, and SonarQube; improved release velocity by **40%**.
  - Implemented monitoring with **Prometheus/Grafana** and security with **Vault** and **Istio policies**, reducing **MTTR by 25%** and improving compliance by **45%**.

- **R&D Engineer (CFD & Data Analysis) |Daejoo Machinery** 07/2021 – 02/2023
  Daegu, South Korea |Link: https://www.djair.co.kr/eng/main/
  - Led **CFD simulations** and performance optimization for turbomachinery, leveraging **Cloud and HPC clusters** and managing both **Linux/Windows servers** to ensure high compute availability.
  - Developed and maintained **Python** automation scripts for batch simulations and large-scale data management in cloud storage, using **NumPy**, **Pandas**, and **Matplotlib** to generate plots and graphs, extracting insights and reducing manual effort by **50%**.
  - Maintained **infrastructure health** (disk usage, job scheduling, queues) through server monitoring and automation, improving resource utilization by **35%**.
  - Implemented **Git/GitHub**-based version control for simulation and automation scripts, enabling collaboration, reproducibility, and DevOps-aligned practices.

- **Robotics Design Engineer** 12/2020 – 04/2021
  EyeROV Technologies Pvt. Ltd., Kochi
  - Designed and analyzed underwater ROV components using **CFD/CAD** to improve hydrodynamic efficiency.
  - Automated simulation workflows with **Python** on **Linux**, enhancing productivity and accuracy.

- **Data Analysis Instructor (Freelance)** 01/2020 – 12/2020
  Remote — Self-Employed
  - Tutored college students in **Python (pandas, numpy, matplotlib)** and **SQL** for practical data analysis workflows.
  - Guided students through real-world **data cleaning and visualization** projects.

- **Consultant Backend Developer** 11/2016 – 11/2019
  Aider Solutions Pvt. Ltd., Kochi
  - Developed backend logic using core **JavaScript** with **MySQL** for data-driven applications.
  - Optimized SQL queries and implemented server-side validation, improving performance and reliability.

Education

M.Tech in Mechanical Engineering, College of Engineering Trivandrum *09/2014 – 09/2016*
B.Tech in Mechanical Engineering, College of Engineering Trivandrum *08/2008 – 08/2012*

Languages

English: Professional proficiency
Hindi: Native proficiency
Malayalam: Native proficiency
Korean: Beginner (reading, writing)