

Jahangir Alam - Devops Engineer

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Profile

DevOps Engineer with solid expertise in Linux system administration, Windows Server, VMware ESXi, and cloud platforms such as Azure and AWS. Proficient in automating CI/CD pipelines using **GitHub Actions** and **Azure DevOps**, with a strong emphasis on infrastructure as code, system reliability, and cloud scalability. Experienced in supporting **AI/ML workflows**, including model deployment, monitoring, and GPU-accelerated environments. Focused on streamlining operations while maintaining performance, security, and efficiency across infrastructure.

Skills

- **Programming & Scripting:** Python, Bash
- **DevOps & CI/CD:** Git, GitLab, Azure DevOps, GitHub Actions, Ansible, Terraform
- **Cloud & Virtualization:** Azure, AWS, Docker, Singularity, VMware ESXi, Hyper-V
- **Infrastructure & System Administration:** Linux, Windows, Active Directory (LDAP, Group Policy), DHCP, Certificate Authority (SSL/TLS)
- **Networking & Security:** TCP/IP, DNS, Load Balancing, McAfee Security Center, Kaspersky Security Center
- **Monitoring & Observability:** Prometheus, Grafana, PRTG
- **Web & Mail Servers:** Apache, Nginx, Litespeed, Postfix, Dovecot
- **AI/ML & GPU Computing:** Apache Spark (HPC), MLflow, LLaMA.cpp, OpenWebUI, Hugging Face Transformers, NVIDIA CUDA Toolkit, cuDNN

Experience

National Science & Technology Park	Islamabad, Pakistan
<i>DevOps Engineer</i>	Mar 2023 – Present

- Designed and maintained secure cloud infrastructure across Azure and AWS
- Automated CI/CD pipelines with Azure DevOps and GitHub Actions
- Managed infrastructure as code using Terraform and Ansible
- Deployed and optimized machine learning/LLM workflows in GPU environments
- Integrated MLflow for model tracking and end-to-end MLOps support
- Focused on automation, configuration management, and cloud-native practices

Skills: IaC, Azure Entra ID, AWS, GitHub Actions, Terraform, Ansible, MLflow, LLM Deployment, NVIDIA CUDA, Docker, Grafana, Linux

National Science & Technology Park	Islamabad, Pakistan
<i>System Administrator</i>	Jul 2022 – Mar 2023

- Managed virtualization with VMware vSphere and Kubernetes
- Enhanced security with firewall policies and SSL/TLS configurations
- Supported AWS and Azure cloud infrastructure
- Administered Linux and Windows servers across environments

- Automated CI/CD using GitLab CI and managed version control workflows
- PowerShell and Bash Scripting
- Provided support for productivity tools (Office 365, Google Workspace)
- Maintained internal systems (Redmine, Jira)

Skills: VMware, Kubernetes, PowerShell, TLS, Docker, Linux, Azure, Prometheus, Office 365, Google Workspace, Jira

Pakistan Telecommunication Company Ltd. (PTCL)

System Administrator

Pakistan

Feb 2019 – Jul 2022

- Managed IT infrastructure and system administration across VMware ESXi, Linux (Ubuntu, CentOS), and Windows Server environments
- Administered core Windows Server services including Active Directory, DHCP, and Group Policy
- Automated routine administrative tasks using Bash scripting to enhance system efficiency
- Designed, deployed, and maintained VMware vSphere infrastructure including ESXi hosts, vCenter Server, upgrades, and migrations
- Installed, configured, and maintained Windows Server environments for development and production use
- Deployed and managed Docker containers to support isolated application environments
- Implemented monitoring and alerting with Prometheus and Grafana for system performance and troubleshooting
- Managed version control and code review processes using Git and GitLab
- Supported internal tools and platforms including Redmine and IIS

Skills: VMware ESXi, Linux (Ubuntu, CentOS), Windows Server, Docker, Git, Bash Scripting, IIS, Redmine, Grafana, Prometheus, AWS

Pakistan Telecommunication Company Ltd. (PTCL)

IT Support Technician

Pakistan

Dec 2017 – Feb 2019

- Installed and configured Windows operating systems on end-user machines, including domain setup and user profile integration
- Ensured synchronization of antivirus software with the central server to enhance endpoint security
- Performed system updates and patch management to maintain secure and stable environments
- Installed and supported Linux distributions (e.g., Ubuntu) for development and production tasks
- Diagnosed and resolved hardware and software issues to minimize user downtime
- Troubleshoot network connectivity issues including LAN, Wi-Fi, and DNS configurations for continuous access

Skills: Windows OS, Linux (Ubuntu), Domain Configuration, Antivirus Management, Patch Management, Hardware Troubleshooting, Network Support (LAN/Wi-Fi/DNS)

Education

- **BS Computer Science**
Virtual University of Pakistan, Lahore 2013–2017
- **Diploma of Associate Engineer - Instrumentation**
Swedish Pakistani Institute of Technology, Gujrat 2006–2009

Certifications

- **AWS Certified Solutions Architect – Associate** AWS
 - **Microsoft Certified: Azure Administrator Associate** Microsoft
 - **Introduction to Git and GitHub** Coursera / Google
 - **Integrating AWS with the SDK** Coursera
 - **Fundamentals of Red Hat Enterprise Linux** Coursera
 - **Red Hat System Administration and IT Infrastructure Services** Coursera / Google
 - **Crash Course on Python** Coursera / Google
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Projects

Deployment of LLM Infrastructure on HPC with Singularity

Deployed a GPU-accelerated LLM backend using `llama.cpp` in a Singularity container to serve GGUF-format models on HPC nodes. Configured a frontend interface with OpenWebUI in a separate container, ensuring modular deployment, security, and optimal GPU utilization.

Technologies: Singularity, HPC, NVIDIA CUDA, LLMs, Linux, Shell Scripting

Local PyPI Repository Deployment

Implemented a Dockerized Nginx server to host an internal PyPI mirror within an air-gapped network. Built and managed Python wheel packages and automated repository updates through GitLab CI/CD.

Technologies: Docker, Nginx, Python, Wheel, GitLab CI/CD

Cloud Infrastructure as Code (IaC)

Provisioned and managed AWS infrastructure using Terraform and AWS CLI. Automated the deployment of EC2, RDS, and S3 services with IAM-based access control and environment consistency.

Technologies: AWS, Terraform, Python, AWS CLI

Monitoring and Logging System for Microservices

Designed and deployed a centralized monitoring solution with Prometheus and Grafana, along with a logging stack using the ELK stack. Enabled proactive alerting and in-depth analysis across Dockerized services.

Technologies: Prometheus, Grafana, ELK Stack, Docker, Linux

Containerized Application Deployment

Containerized and deployed internal tools including Redmine, GitLab, and Nagios using Docker Compose for streamlined orchestration, modularity, and scalability.

Technologies: Docker, Docker Compose, GitLab, Nagios, Redmine

Apache Spark Cluster for ML Lab

Deployed and configured a standalone Apache Spark cluster to enable distributed machine learning workflows. Integrated Spark MLlib with optimized performance for large-scale data processing.

Technologies: Apache Spark, Hadoop, PySpark, Spark MLlib, Ubuntu

GitLab CI/CD Pipeline for GCP VM Management

Developed a secure GitLab CI/CD pipeline to automate the lifecycle of GCP VMs (start, stop, restart) with role-based access. Enabled containerized application deployments to reduce downtime and manual overhead.

Technologies: GitLab CI/CD, GCP, Docker

Linux From Scratch (LFS) Custom Build

Built a minimal Linux distribution from source using LFS, compiling the toolchain, kernel, and system utilities. Achieved performance and security optimization through manual configuration and customization.

Technologies: LFS, Bash, GCC, Make, Linux Kernel, GRUB, SysVinit

Automated Server Provisioning with Ansible

Developed reusable Ansible playbooks to automate server provisioning, software installation, and system configuration for Ubuntu and CentOS environments. Integrated with CI/CD for automated rollout.

Technologies: Ansible, YAML, SSH, Git, Ubuntu, CentOS