



Pranav Sharma

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Professional Summary

AWS Certified DevOps Engineer with around 3 years of experience in cloud infrastructure automation and CI/CD pipeline design. Proven track record working in distributed teams to deploy scalable systems using AWS, Terraform, and Ansible. Demonstrated expertise in monitoring and cost optimization of cloud resources. Strong foundation in software development (Python, Java, C++), real-time systems, and monitoring tools like Grafana, Prometheus, and SonarQube. Passionate about combining software engineering and operations to build robust and maintainable systems.

Skills

- **Cloud & Infrastructure:** AWS (EC2, EBS, CloudWatch, Aurora, VPC, IAM, S3, EKS, ECS, ALB, ASG) • Terraform • Ansible • Docker • Kubernetes
- **CI/CD & Version Control:** Jenkins • GitLab • GitHub Actions • Groovy • Gradle
- **Monitoring & Observability:** CloudWatch • Grafana • Prometheus
- **Containerization:** Docker • Kubernetes
- **Linux Administration:** Ubuntu • CentOS • Bash scripting
- **Networking:** VPC • Subnets • CIDR Blocks • Load Balancers

EXPERIENCE

01/2022 – 09/2024
Erlangen, Germany

Graduate Researcher Fraunhofer IIS

- Designed and optimized real-time audio and video data pipelines using Python and C++, enhancing performance by 30%.
- Built a Unity plugin for spatial rendering, integrating streaming capabilities with live audio-visual feedback.
- Developed a Python-based unsupervised ML method to match Room Impulse Responses (RIRs), improving algorithmic precision by 15%.
- Actively collaborated in interdisciplinary teams with researchers and engineers to implement system prototypes and test environments.
- Contributed to monitoring setups for live DSP systems and developed modular solutions for audio playback reliability.

09/2018 – 06/2020
Pune, India

Associate Engineer- Software Developer Tata Consultancy Services

- Delivered 99.99% service uptime for Bank of Montreal's Model Data Repository, serving Dev, QA, UAT, and Prod environments via SQL database administration.
- Orchestrated 150+ deployments per month using Docker, Kubernetes (AWS EKS), and Jenkins, reducing release cycles from 10 days to 3.
- Implemented Kubernetes deployments by using Helm charts for 20+ microservices, reducing configuration complexity by 60% and enabling consistent deployments across multiple environments.
- Reduced infrastructure costs by 40% through automation and optimization of AWS resources using Terraform and CloudFormation
- Integrated SonarQube, Trivy, and AWS IAM in CI/CD pipelines, fixing 30+ vulnerabilities proactively in every cycle.

EXPERIENCE

- Migrated a MySQL database to Amazon Aurora using AWS Database Migration Service, improving performance and availability with multi-AZ setup.
- Built CI/CD pipelines with Jenkins and GitLab Actions for Node.js microservices, cutting down the deployment time by 40%.
- Established proactive risk management protocols using AWS CloudWatch alarms and Prometheus alerting, achieving 95% uptime.
- Managed Linux-based production environments using GitOps practices with ArgoCD, reducing deployment errors by 90% and improving system reliability
- Documented CI/CD, infrastructure best practices, accelerating team onboarding.

EDUCATIONAL QUALIFICATION

2021 – 2024
Ilmenau, Germany

Media Technology | Masters
TU Ilmenau (GPA: 1.3)

2014 – 2018
Jammu, India

Electronics and Communication | Bachelors
SMVDU

Key Project Highlights

04/2025 – present

CryptoChat AI: AI-powered Ethereum Transaction Agent

- Built and Dockerized an AI chat agent enabling Ethereum Sepolia transactions.
- Deployed dockerized web app on AWS EC2 with automated Node.js and PNPM setup.

02/2025 – 03/2025

SnakeOps: CI/CD-Powered Browser Game

- Implemented GitHub Actions CI/CD and Gradle build automation.
- Improved observability via Datadog integration.

12/2024 – 02/2025

Spotify Trendz: Scalable Music Recommendation API

- Automated AWS infrastructure (EKS) with Terraform.
- Implemented system monitoring using Prometheus + Grafana.

09/2024 – 01/2025

Scalable Laravel Application Deployment on AWS ECS

- Deployed Laravel app on AWS ECS with autoscaling and ALB for high uptime.
- Automated deployment with Terraform, reducing errors by 80%.
- Implemented AWS CodeBuild and CodePipeline, cutting deployment time by 30%.

07/2024 – 10/2024

Bill Dekho: Automated Smart Meter Tracker

- Web app for electricity usage analytics via data scraping with Selenium
- Deployed with Django API, Docker, reverse proxy (NGINX), and ArgoCD

Languages

English (C1)

German (B1)

CERTIFICATIONS

01/2025

AWS Developer Associate

https://www.credly.com/badges/e666b1fd-275c-466d-9a81-42e666ae4763/public_url

03/2025

AWS Networking

https://www.credly.com/badges/1aa0b9a6-81ff-4d1f-83f6-eadab6fc5735/public_url

Social Media



Github



Portfolio

References

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Dr.-Ing. Stephan Werner
Technische Universität Ilmenau

Hobbies



Exploring distant
lands



Getting lost in a
good book



Capturing
moments



Feeling the music



Every kind of sport

Strengths

Automation Monitoring Troubleshooting Team Player Quick Learner Reliable Under Pressure Proactive

Strong Problem Solver