Abhay Thakur

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Summary — Final-year student with experience in DevOps and cloud projects, focusing on automation, security, and scalable, cost-effective microservices. Skilled in Infrastructure as Code to streamline cloud deployments and improve efficiency. Committed to delivering secure, robust solutions and collaborating with teams to build reliable, scalable systems that advance cloud engineering and DevOps practices.

Skills

Cloud Platforms: AWS (EC2, Lambda, S3, RDS, VPC)
Programming: Python, Java, Shell Scripting
Containerization: Docker, Kubernetes (EKS)
Operating System: Ubuntu, CentOS
CI/CD Tools: Jenkins, GitHub Actions, ArgoCD
IaC: Terraform, Ansible
Monitoring & Logging: Prometheus, Grafana
Version Control: Git, GitHub
Databases: MySQL
Machine Learning: TensorFlow, scikit-learn, neural networks, data modeling, algorithms

Work Experience

Infosys Springboard **May 2024 - July 2024**
AI/ML Intern (Remote)

- Developed a plant disease detection web application using Python and TensorFlow, achieving 96% model accuracy.
- Improved model robustness by 20% with advanced data augmentation, enabling better performance on diverse inputs.
- Reduced time to diagnosis by 25% through integrated disease classification and treatment suggestion features.
- Enhanced error tolerance by 15% via automated filtering of non-leaf images to minimize irrelevant inputs.
- Built container deployment files (Dockerfile, Compose) to streamline launches across multiple environments.

Project Experience

End-to-end Microservices Deployment on AWS EKS

- Deployed a microservices platform to Amazon EKS, leveraging Infrastructure as Code for efficient, scalable provisioning.
- Automated continuous integration and delivery with Jenkins, enabling seamless updates and rollbacks.
- Managed traffic with Ingress and load balancing, monitored system health using Prometheus and Grafana.
- Implemented GitOps deployment with ArgoCD and configured autoscaling for optimal performance.

Amazon Prime Clone Deployment with DevOps Automation on AWS

- Automated infrastructure rollout using Terraform to provision EC2 instances and EKS clusters securely and efficiently.
- Integrated code quality checks (SonarQube) and security scanning (Aqua Trivy) within Jenkins-driven CI/CD pipelines.
- Containerized services, pushed images to AWS ECR, and orchestrated deployments on EKS via ArgoCD.

Brain Tumor Detection App with Kubernetes Deployment

- Built an AI-driven web solution for brain tumor MRI analysis with TensorFlow and Flask.
- Packaged services as containers and deployed on Kubernetes (EKS), ensuring scalability and reliability with MySQL.
- Configured Nginx as an ingress controller for secure traffic routing.
- Authored Kubernetes manifests to automate deployment, scaling, and system management.

Education

Bachelor of Technology in Computer Science & Software Engineering **November 2022 - Present**
C.V. Raman Global University, Odisha *Cumulative GPA: 8.59/10*

Higher Secondary Education **Sep 2020 – Oct 2022**
National Infotech School, Birgunj *Cumulative GPA: 8.53/10*

Certifications & Research Papers

- KodeKloud -DevOps Mastery
- Implementation and Performance Analysis of K-NN Algorithm for Classification.

Strengths & Achievements

- Strong problem-solving skills, passionate about automation, and a continuous learning mindset.
- Awarded the Study in India Scholarship by the Ministry of Education, India.
- Taught basic computer skills to 40+ underprivileged children, boosting digital literacy by 60%.

Additional Information

- Languages Known: English, Hindi, Nepali
- Interests: Interests: Cloud Technologies (AWS), Data-Driven Solutions, Machine Learning and AI, AI-powered apps