SWARAJ MAHESH BHOITE

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PROFILE SUMMARY

Aspiring **DevOps Engineer** targeting roles within a reputable organization, aiming to enhance expertise and further career growth.

- Proficient in **AWS, Docker, Kubernetes**, and related technologies, with a strong background in automating and optimizing infrastructure.
- Demonstrated ability to manage and deliver **projects efficiently**, from initial planning and design to final deployment.
- Experienced in implementing CI/CD pipelines, ensuring seamless integration and delivery of software.
- Skilled in monitoring and maintaining system performance, ensuring high availability and reliability of applications.

TECHNICAL SKILLS

- **Languages** : Java, Python, JavaScript, HTML, CSS
- **Frameworks** : ReactJS, Node.js, Express.js
- **Databases** : Oracle, MySQL, MongoDB
- **DevOps Tools** : Docker, Kubernetes, Maven, SonarQube, Tomcat Server, Jira
- **Cloud Platform** : AWS (EC2, IAM, S3, Route53, VPC, SNS, Beanstalk, EFS, SQS, Elastic Load Balancer, RDS, Auto Scaling, DynamoDB, AWS CLI, Cloud Watch, Cloud Trail, Cloud Front)
- **Scripting & Automation** : Shell Script (Bash), Windows PowerShell, Python, Ansible, Terraform
- **Version Control & CI/CD** : Jenkins, Git, GitHub, Bitbucket
- **Operating Systems** : Linux (Ubuntu, CentOS), Windows, Red Hat

EDUCATION

Zeal Institute of Business Administration, Computer Application & Research, Pune — Aug 2022 - Jun 2024

Master of Computer Application (Management) — ***CGPA:7.45/10***

MES's Abasaheb Garware College of Arts and Science, Pune — Jun 2019 - Apr 2022

Bachelor in Computer Application (Science) — ***CGPA:7.84/10***

PROJECTS

Virtual Private Cloud (VPC) Implementation in AWS

- Developed a Virtual Private Cloud (VPC) on AWS, creating secure and isolated environments for deploying applications.
- Configured public and private subnets, an Internet Gateway for internet access, and a NAT Gateway for secure updates.
- Implemented security using Security Groups and Network ACLs. Monitored network traffic with VPC Flow Logs and ensured efficient routing with route tables.
- Deployed EC2 instances in the subnets to support scalable and reliable application hosting.

Technologies Used: AWS Services: VPC, EC2, EBS, Internet Gateway, NAT Gateway, Route Tables, Security Groups, NACLs, VPC Flow Logs, CloudWatch
Networking: CIDR, IPv4, Subnets (public and private), IP addressing

Developed and engineered a comprehensive CI/CD pipeline using modern DevOps tools

Key Tasks:

- Infrastructure Provisioning: Used Terraform to set up Jenkins, build nodes, and Ansible server.
- Configuration Management: Configured Ansible for automating Jenkins setup and management.
- Pipeline Development: Created Jenkins pipeline jobs and Jenkins files to automate builds and deployments.
- Code Quality: Integrated SonarQube for continuous code quality checks.
- Containerization: Created Docker files for applications and stored images in Artifactory.
- Kubernetes Deployment: Provisioned Kubernetes clusters using Terraform and deployed applications with Helm charts.
- Monitoring: Implemented Prometheus and Grafana for cluster monitoring and visualization.
- **Technologies Used**: Terraform, Jenkins, Ansible, SonarQube, Docker, Kubernetes, Helm, Prometheus & Grafana.

Load Balancing and Auto-Scaling with EC2 Instances in AWS
Implemented load balancing and auto-scaling for a web application using AWS EC2 instances, an Application Load Balancer (ALB), and an Auto Scaling Group (ASG). The goal was to ensure high availability, reliability, and automatic scaling based on demand.
Key Activities:

- Created a security group with inbound rules for SSH (port 22) and HTTP (port 80) traffic.
- Developed a launch template defining the configuration for EC2 instances, including instance type and key pair, with user data to install and start a web server.
- Configured an Auto Scaling Group using the launch template.
- Set up an Application Load Balancer (ALB), created a target group and linked it to the ALB.
- Connected the target group to the ASG, enabling automatic registration of instances with the ALB.
- Verified the ALB's functionality by accessing its DNS URL to ensure even traffic distribution across instances.
- Tested auto-scaling by simulating load, observing the ASG's ability to adjust the number of instances based on demand.
- Post-verification, deleted the ALB, target group, ASG, and launch template to avoid unnecessary charges.

Technologies Used: EC2, ALB, Auto Scaling Group (ASG), Security Group
This setup ensured a robust, scalable, and cost-effective solution for managing web application traffic, providing high availability and performance.

Blog Application with Authentication Tools: React, Node, Express, MongoDB, JWT Authentication

- Created a comprehensive platform enabling users to register, authenticate, and manage their blog posts effortlessly.
- Designed and implemented a responsive user interface using React, ensuring a seamless user experience across devices.
- Implemented secure authentication and authorization mechanisms using JWT, safeguarding user data and controlling access to different application features.
- Utilized Redux to manage the application state, ensuring consistency and predictability in the user interface and interactions.
- Built a robust backend using Node.js and Express, handling user data, blog post management, and other core functionalities.
- Set up and managed a MongoDB database, providing a scalable solution for storing user information and blog content.

AWARDS/ACHIEVEMENTS/EXTRA CURRICULAR ACTIVITIES

- **Research Paper published** (in International Journal of Novel Research and Development (IJNRD):
  - A study on awareness about cyber-crime among college students | **LINK**
  - A study towards customer perception on E-commerce | **LINK**

CERTIFICATIONS

- Awarded as **Student of the Week** multiple times for exceptional performance and overall contribution.
- AWS Certified Cloud Practitioner (CLF-C02)
- International Journal of Novel Research and Development Certificate for Research Paper Publications