Richard Bina Jadi Simanjuntak

DevOps Engineer

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SUMMARY

Telecommunication Engineering graduate who is passionate about DevOps Engineer. Experienced using multiple cloud platforms such as Redhat Openstack, Amazon Web Service, Microsoft Azure, and Google Cloud Platform to perform simple web deployments. Hands-on experience using tools like Jenkins, Grafana-Prometheus, and EFK stack. Love to design, implement cloud applications, and migrate existing on-premises applications to the cloud. Excellent problem-solving skills and ability to perform well in a team.

EXPERIENCE

Inovasi Informatika Indonesia - Jakarta, Indonesia
Cloud Consultant (July 2022 – Present)

- Orchestrated the installation and upgrade project for the Red Hat OpenStack public cloud across two sites, managing a robust infrastructure comprising 10 production nodes and 5 development nodes.
- Managed the ongoing operation of services on the deployed public cloud, consisting of a total of 36 nodes on 3 site with total 2600+ instances. Ensured seamless availability and optimal performance through vigilant 24/7 monitoring and management.
- Implemented advanced monitoring solutions using Grafana and Prometheus, incorporating custom exporters to enhance system surveillance. This initiative aimed at achieving early issue detection, conducting historical analysis, and optimizing resource utilization.
- Developed and deployed automation scripts using Ansible and Bash, facilitating seamless resource instantiation, network configuration, and image management. These scripts were instrumental in streamlining customer workflows and conducting comprehensive testing on the Red Hat OpenStack platform.
- Delivered Proof of Concepts (PoCs) to client:
  - Executed data center automation utilizing Metal-As-A-Service (MAAS) and Rackn Digital Rebar Platform.
  - Managed a seamless vSphere upgrade from ESXi 6.0 to 7.0.3.
  - Implemented a Hybrid Cloud Management Platform leveraging Morpheus, demonstrating the fusion of versatility and efficiency in cloud management.

Bangkit Academy - Jakarta, Indonesia
Capstone Advisor (May 2023 – December 2023)

- Assigned to five teams, aiming for a satisfaction rating of 4.75/5, and ensure continuous progress tracking to keep all teams on track- Provide guidance and assistance in the realms of Cloud Computing and Machine Learning to ensure teams have the necessary technological resources and insights.
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- Offer advice and encouragement to instill confidence in each team, fostering optimism about the timely completion of their capstone projects.

Telkom University - Bandung, Indonesia
Research Assistant (August 2021 – January 2022)

- Doing research on fundus image with lecturers and research team using Google Collaboratory and TensorFlow library.
- Classifying eye diseases based on fundus images, namely cataracts, glaucoma, and diabetic retinopathy based on 399+ datasets.
- Conducting research focused on cataracts using machine learning models: GoogLeNet, ResNet, MobileNet, and the proposed model.

Tokenomy Ltd. - Jakarta, Indonesia
Development Engineer Intern (September 2021 – December 2021)

- Compile system documentation of every feature in the Tokenomy web application to make it easier for new employees and other teams to understand the high-level architecture of Tokenomy.
- Installing Grafana and Prometheus on the Tokenomy Server makes it easier for the tech ops team to monitor infrastructure, web applications log, and web app performance.
- Providing 10+ information every day about the crypto market to assist the tech ops team in monitoring the movement of the crypto market.

Telkom Indonesia - Medan, Indonesia

Access Service Operation Intern (July 2020 - August 2020)

- Analyzing 10+ data customers every day from each internet number which includes all Indihome customers in Medan and modifying customer's package and optimization CPE/NTE performance.
- Maintaining network stability and the condition of the internet by checking internet specs as well as improving and repairing problematic systems for customers to restore conditions for the better.
- Manage more than 10+ user data in subscription registration through sales or websites on Indihome services and problems also executing and monitoring new installs of Indihome services through K-Pro web within reach of Telkom Medan.

EDUCATION

Telkom University (2018 – August 2022)
Bachelor of Telecommunication Engineering - GPA 3.07

Sekolah DevOps Cilsy (January 2022 – May 2022)
DevOps Engineer

Bangkit Academy (February 2021 – July 2021)
Cloud Computing Learning Path

CERTIFICATIONS

- Microsoft Certified: Azure Fundamentals
- AWS Academy Graduate – AWS Academy Cloud Developing
- AWS Academy Graduate – AWS Academy Cloud Architecting
- AWS Partner: Accreditation Technical
- Oracle Cloud Infrastructure 2023 Certified Foundations Associate
- Red Hat Enterprise Linux Automation with Ansible Training (RH294)
- Alibaba Cloud: Alibaba Cloud Associate (Cloud Computing)
- Google: Google IT Automation Professional Certificate
- Google: Google IT Support Professional Certificate
- Dicoding Academy: Cloud Practitioner Essentials (Belajar Dasar AWS Cloud)
- Dicoding Academy: Memulai Pemrograman Dengan Python
- Dicoding Academy: Belajar Dasar Pemrograman Web
- Cisco Networking Academy: Programming Essentials in Python
- ADINUSA (Akademi Digital Nusantara): Docker For DevOps
- ADINUSA (Akademi Digital Nusantara): Linux System Administration

SKILLS

- Cloud Computing Platform (Redhat Openstack, AWS, Azure, GCP)
- Source Code Management (Github)
- Cluster Management (Kubernetes)
- Kubernetes Management (kOps)
- Docker
- Redhat Openstack
- CI/CD (Jenkins)
- IaaS (Ansible)
- Monitoring & Logging (Grafana-Prometheus and EFK Stack)
- Morpheus Cloud Mangement
- MaaS and Rackn Data Center automation
- Programming Language (Python, C, PHP)

Projects

PT. Inovasi Informatika Indonesia

1. Public Cloud (Red Hat OpenStack Platform 16.1) Manage Services
    - Proactive Health Assessment: Conduct preventive maintenance through regular health check assessments of the Red Hat OpenStack Platform. Identify potential issues before they become critical.
    - Issue Resolution: Troubleshoot and resolve any issues related to the Red Hat OpenStack Platform promptly, ensuring smooth and uninterrupted operations.
    - Safeguarding Platform Stability: Ensure the platform's stability by implementing best practices, performance optimizations, and proactive measures to minimize disruptions.
    - Knowledge Sharing: Facilitate discussions, document findings, and present health check assessment results to stakeholders. Promote a transparent and collaborative approach to platform management.
    - Upgrade: Scale Out 6 Nodes on production Environment.
2. Public Cloud (Red Hat OpenStack Platform 16.2) - Design & Implementation
    - Designing Robust OpenStack for Dev with NetApp Integration: designing and architecting a robust Red Hat OpenStack 16.2 environment with seamless NetApp Storage Backend integration.
    - Implementing OpenStack Infrastructure: deploying and configuring Red Hat OpenStack 16.2 with the NetApp Storage Backend. This task offers hands-on experience in transforming architectural blueprints into functional systems.
    - Deploy and Configure RHEL Virtual Machine Monitoring and Logging Platform: deploying and configuring a Red Hat Enterprise Linux (RHEL) virtual machine-based Monitoring and Logging Platform.
    - Empowering OpenStack with Monitoring Tools: Deploy and configure Prometheus, Pushgateway, node exporter, loki, and Grafana to establish comprehensive OpenStack Monitoring Solutions. This task empowers to translate data into actionable insights without exaggeration.
    - Tailoring Insights for Client Needs: create custom metrics and dashboards, aligning them precisely with the customer's requirements.

Sekolah DevOps Cilsy

1. Build On-Premises Infrastructure for Web Apps
    - Create a server infrastructure on simple premises, i.e., web server and database server services for Web Applications and social media.
    - Automated build infrastructure using a bash script and stored in the GitHub repository.

2. Build AWS Cloud-Based Infrastructure for Apps
    - Make the most effective budget planning to use the cloud.
    - Create an infrastructure topology for all apps that are used.
    - Create a cloud-based infrastructure that has the ability to share traffic that is useful for handling high user activity.
    - Separate the database from the main server so that it can perform database mirroring.
    - Using and redirecting domain on Route53.

3. Build Container Orchestration-Based Infrastructure
    - Create a suitable and efficient topology for infrastructure for staging and production environments with three web apps.
    - Make a budget planning for the use of three months.
    - Create a Kubernetes cluster with kops and divide the environment using the staging and production namespaces.
    - Create an image of social media web apps that are integrated with RDS and landing pages.
    - Deploy social media, landing page, and WordPress to the Kubernetes cluster.
    - Direct all web apps on the route53 domain according to the desired domain.

4. On-Premises Infrastructure Migration to The AWS Cloud
    - Design infrastructure topology for web-based to-do list applications built using the MERN stack (MongoDB, ExpressJS, ReactJS, and NodeJS).
    - Make the most effective budget planning to use in the use of the cloud usage for 6 months.
    - Separating frontend, backend, and database services.
    - The entire system is container-based and continuous process development using Docker, Kubernetes, and Jenkins.
    - Implemented autoscaling feature that can prevent slow servers during high traffic using Horizontal Pod Autoscaling.
    - Central monitoring system for all containers and servers using Grafana-Prometheus.
    - Implement central logging for all containers and servers with EFK Stack.

Bangkit Academy

1. Pafin Application
    - Built Pafin (Partner Finder) Application Architecture using Firebase and Google Cloud Platform.
    - Integrating Natural Language Processing system into Google Cloud Platform, ensuring machine learning works properly using cloud functions and cloud run.
    - Led the application and design of the Pafin, ensuring a consistent user experience in mobile apps.

MariBelajar - Intelligence cloud Track

1. Website & Chatbot Online Services for Capstone University Academic Agencies
    - Build a WordPress-based university website with the Nginx web server.
    - Install WordPress using docker and integrate chatbot power virtual agent with Capstone University web.
    - Configure the Azure VM that will be used so that the web can be deployed and accessed