**Balagajan Sathananda**

**(DevOps Engineer)**

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**PROFILE**

* Skilled Engineer with over 4 years of hands-on experience in designing, automating, and managing cloud infrastructure across AWS, GCP, and Azure environments
* Engaged in Infrastructure as Code (IaC) using Terraform and Ansible, container orchestration with Kubernetes, and automated deployment pipelines with GitLab and Jenkins
* Proven track record in cost optimization by rightsizing resources, automating non-critical processes, and enhancing infrastructure monitoring with Datadog, Prometheus, and Grafana
* Automated 80% of resource provisioning and job scheduling workflows, resulting in an 80% reduction in deployment times and significantly improved system scalability and reliability
* Strong advocate of DevOps culture, with a focus on automation, collaboration, and continuous improvement to deliver high-performing, secure, and scalable solutions
* Experienced in incident resolution, root cause analysis, and cross-functional team collaboration, ensuring efficient problem-solving and operational excellence

**experience**

**Site Reliability Engineer (Co-Op)**  **September 2024 – December 2024**

**Blue Lotus X Inc, Scarborough, Ontario.**

**Project: Secure Microservice Deployment for Telehealth Platform**

* Automated microservice deployments to AKS using an Azure DevOps CI/CD pipeline, reducing manual deployment effort by 20% and significantly decreasing the time to release
* Implemented blue/green deployments to ensure seamless transitions and minimize disruptions
* Collaborated with the development team in Agile sprints to deliver bi-weekly updates and features, while adhering to strict security and compliance requirements
* Successfully documented all installations and configurations

**DevOps Engineer (Internship)** **July 2023 - November 2023**

**iVedha Inc, Toronto, Ontario**.

**Project**: **Scalable HPC Job Scheduling System using Slurm**

* Integrated Kubernetes to run SLURM jobs as pods, leveraging Kubernetes for resource management, scaling, and high availability
* Developed Bash scripts to automate Azure resource provisioning, ensuring efficient scaling of HPC resources and seamless job scheduling via SLURM
* Leveraged Azure VMs and Kubernetes for dynamic scaling of HPC resources, reducing infrastructure costs by 30% during peak demand

**Site Reliability Engineer**   **August 2020 - May 2023**

**Sysco LABS Technologies, Sri Lanka.**

**Project: Scalable and Secure Dockerized Order Processing System**

* Developed a scalable order processing system using a microservices architecture with Node.js and Angular for the frontend, containerized with Docker and deployed on Azure Container Instances
* Optimized complex stored procedures using SQL, resulting in a 25% improvement in the performance of data retrieval
* Integrated Redis caching for frequently accessed data, cutting down redundant database queries by 60% and improving dashboard responsiveness
* Set up API monitoring using Prometheus and Grafana to track performance and ensure reliability

**Project: Automated EKS Cluster Provisioning and CI/CD Pipeline Implementation**

* Implemented Terraform for AKS cluster provisioning, reducing manual setup time by 40% and ensuring consistency across environments
* Improved system availability by integrating Kubernetes Horizontal Pod Autoscaler (HPA) and self-healing mechanisms, ensuring seamless order processing under high traffic
* Design and implemented an Azure DevOps pipeline for a microservices-based application deployed on Azure Kubernetes Service

**Project: Automated Cloud Infrastructure with Terraform & Ansible**

* Designed cost-efficient cloud infrastructure on Azure using IaC with Terraform, leveraging Azure Monitor and cost management tools for monitoring and optimization
* Improved overall system reliability by configuring Azure Monitor alerts integrated with Azure DevOps for notifications and incident management, reducing incident response times by 40%
* Created Datadog email alerts and notifications to communicate health and incident alerts
* Applied Azure Role-Based Access Control and Azure AD Privileged Identity Management adhering to the principle of the least privilege, limiting access to Azure resources
* Configured Network Security Groups and Azure Firewall to secure traffic and restrict ports, implementing network segmentation and defense-in-depth security
* Enhance the access security and user management by successfully integrating Single Sign-On (SSO) for SonarQube with Azure AD

**Junior Network Administrator** **February 2020 - August 2020**

**Rezgateway Pvt Ltd, Sri Lanka.**

**Project: Proactive System Monitoring and Incident Management**

* Monitored data centers and AWS environments, troubleshooting system and network issues using Nagios, Kibana, Splunk and CloudWatch for log monitoring
* Managed P1/P2 on-call incidents, ensuring SLA/SLO adherence using ServiceNow and JIRA for seamless incident handling
* Reduced incident resolution time by 20% by automating common remediation tasks using scripts and integrating with monitoring systems
* Implemented automated maintenance tasks using batch scripts and Windows Task Scheduler, including system reboots, service restarts, and routine maintenance, improving system stability
* Authored and maintained technical documentation and knowledge base articles in Confluence, reducing the knowledge gap and improving user self-service capabilities

**education & CERTIFICATIONS**

**Postgraduate diploma in DevOps for Cloud Computing.**  **May 2023 – December 2024**

Lambton College.

**Bachelor of Engineering in Electronics and Communication.** **August 2015 - June 2019**

Gujarat Technological University

**Terraform Associate 003** **March 2024**

**ITIL v4 Foundation** **September 2021**

**AWS Certified Solution Architect** **January 2021**

**Microsoft Azure Administrator (AZ-103)** **May 2020**

**RedHat Certified Engineer (RHEL 07)** **February 2020**

**RedHat Certified System Administrator (RHEL 07)**  **October 2019**

**Foundation Course in Human Resource Management** **April 2015**