

# NKOSINATHI SOLA

## DevOps Engineer | Site Reliability Engineer

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A DevOps | SRE Engineer with rich experience in developing, supporting, automating, and optimizing mission-critical deployments. Passionate about infrastructure automation, cloud technologies, and creating efficient CI/CD pipelines with a goal to build reliable, secure systems that scale and perform optimally.

## Professional Experience

### Site Reliability Engineer | Travelstart, Cape Town | January 2023 - Present

- Built and managed software systems to automate the management of platform infrastructure and applications.
- Developed tools and processes to monitor and improve system availability, reliability, and performance.
- Proactively monitored production environments, focusing on availability and holistic system health monitoring.
- Measured and optimized system performance, innovating solutions to meet growing customer demands.
- Provided primary operational support and engineering for large-scale, distributed software applications.
- Supported developers' infrastructure, deployment processes, and operational requirements.
- Managed infrastructure across Azure, AWS, and Google Cloud Platforms.
- Administered systems for e-commerce applications, ensuring security and high availability.
- Handled day-to-day systems administration tasks for production servers to ensure continual uptime.
- Managed GitHub and Azure DevOps repositories and deployment pipelines.
- Worked with Kubernetes, Spinnaker, Jenkins, and Nexus for continuous integration and continuous delivery (CI/CD).
- Maintained Windows Server environments and IIS 7 web server infrastructure.
- Administered and maintained Microsoft SQL Server environments.
- Maintained a secure IT environment for all e-commerce and production systems.
- Ensured adherence to PCI compliance standards.

### Software Deployment Engineer | AiFi Inc | January 2022 - December 2022

- Deployed and automated AiFi's proprietary software solutions on client premises and cloud environments, utilizing Docker, Kubernetes, and microservices-based architecture.
- Implemented auto-provisioning of servers, Kubernetes clusters, and store software systems to accelerate deployment timelines.
- Worked closely with hardware, networking, project management, QA, and development teams to coordinate end-to-end deployments.
- Conducted User Acceptance Testing (UAT) to validate system stability, camera feeds, connectivity, and ensure readiness for store openings.
- Diagnosed and resolved technical issues during deployments by analyzing Kubernetes resources, container logs, network flows, and REST API integrations.

- Utilized advanced troubleshooting methods including SSH tunneling, tcpdump, nmap, and log analysis to detect and fix network and software failures.
- Identified bottlenecks in the deployment process and contributed to continuous improvement initiatives, including documentation updates and knowledge base expansion.
- Used tools for virtualized environment setup and managed remote deployments with PXE boot, Terraform, and Ansible for server/cluster provisioning.
- Enhanced deployment automation pipelines with Helm and Kustomize to streamline Kubernetes configurations.
- Supported hardware installation by validating network connectivity, reviewing construction plans for camera placement, and ensuring adherence to server and sensor installation standards.
- Coordinated with third-party system integrators during store builds and activations.
- Actively participated in global deployments across various retail verticals, including convenience stores, sports arenas, and corporate campuses.

#### **Junior DevOps Engineer | BCX - Business Connection Ltd | *October 2021 - March 2022***

- Developed and maintained Python automation scripts to streamline reporting tasks and operational processes, significantly improving data delivery efficiency for internal teams and clients.
- Designed and built custom metrics dashboards for clients, providing real-time insights into infrastructure health, system performance, and key operational metrics.
- Integrated multiple data sources and monitoring tools into centralized visualization platforms to enhance decision-making and proactive incident management.
- Supported server deployments across hybrid environments including AWS, Microsoft Azure, and On-Premises infrastructure.
- Assisted with basic provisioning, configuration, and monitoring tasks for cloud and physical servers.
- Worked closely with clients to understand their monitoring and reporting needs, ensuring that dashboard solutions aligned with their technical and business requirements.
- Actively participated in internal knowledge sharing, automation improvement initiatives, and DevOps best practices workshops.

#### **DevOps Engineer | Bloqtech Solutions Pty Ltd (formerly GloBee) | *February 2021 - September 2021***

- Independently managed and optimized AWS cloud infrastructure, including provisioning and scaling EC2 instances, configuring S3 buckets for storage, and managing RDS databases for high availability.
- Built and deployed Docker containers, refactoring monolithic applications into microservices to improve scalability and deployment speed.
- Designed, implemented, and maintained fully automated CI/CD pipelines to ensure smooth, reliable, and fast software deployments across development, staging, and production environments.
- Integrated GitHub Actions with cloud resources to automate build, test, and deployment processes, improving release cycles.
- Maintained Git repositories, ensuring clean branching strategies, version control standards, and collaboration practices across the engineering team.
- Monitored cloud infrastructure and application performance, identifying and resolving incidents to maintain system reliability and uptime.
- Applied best practices in cloud security, IAM roles, and resource policies to safeguard applications and sensitive data.

- Worked collaboratively with development teams to streamline DevOps processes, optimize resource usage, and support continuous delivery initiatives.

**Intern DevOps Engineer | Bloqtech Solutions Pty Ltd (formerly GloBee) | November 2020 - January 2021**

- Monitored and reviewed merchant transactions to ensure smooth payment processing and transaction reliability.
- Supported merchants by handling security questions, transaction inquiries, and ensuring superior customer service in the cryptocurrency payment environment.
- Worked under the guidance of a Senior DevOps Engineer to help build, maintain, and troubleshoot cloud infrastructure in AWS.
- Gained hands-on exposure to managing AWS resources including RDS (Relational Database Service), CloudFront (CDN), EC2 instances, Lambda functions, Auto Scaling Groups, IAM roles/policies, and Route 53 (DNS management).
- Assisted in the development, maintenance, and troubleshooting of GitHub Actions pipelines to automate code deployments and infrastructure changes.
- Supported efforts to ensure merchant and card data security according to industry best practices and internal compliance policies.
- Helped maintain and enforce security practices across AWS resources and cloud deployments.

**Intern Software Engineer | Bloqtech Solutions Pty Ltd (formerly GloBee) | February 2020 - October 2020**

- Worked closely under the mentorship of senior software engineers to design, develop, and debug software applications in the cryptocurrency payment space.
- Coded and tested components for a crypto payment gateway enabling merchants to securely accept cryptocurrencies with real-time exchange and payment batching optimization to minimize network fees.
- Contributed to the development of proxy services to manage cryptocurrency wallets and nodes for multiple digital assets, simplifying interaction through a unified interface.
- Reviewed and tested peer engineers' code to ensure software quality and adherence to coding standards.
- Participated in experimentation and iterative improvements on system designs and architecture.
- Assisted in building and maintaining AWS Lambda functions for managing cryptocurrency transactions where SDK support was limited.
- Gained exposure to serverless architectures and cloud-native development in AWS.

**Education | CAPE PENINSULA UNIVERSITY OF TECHNOLOGY | DIP IN ICT : Applications Development**

**References | Available upon request**