ROSELYNE NYANSARORA OKEMWA

NETWORK | CLOUD ENGINEER

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Experienced IT professional with over 4 years of expertise in systems administration, network management, and end-user support. Proficient in maintaining and administering live networks, managing software and hardware configurations, and providing technical assistance to ensure seamless operations. Demonstrated ability to troubleshoot and resolve complex technical issues, perform regular maintenance, and implement security measures to safeguard organizational data. Proficient in designing, implementing and troubleshooting complex network architectures, configuring routers, switches and firewalls to ensure seamless connectivity with 99.9999% availability. Familiar with various network protocols and technologies such as DNS, TCP/IP, BGP, MPLS, VLANs, VPNs and SSH for secure connections. Recognized for excellent communication skills, technology enthusiasm and the ability to explain complex concepts to non-technical end users.

RELEVANT SKILLS

TECHNICAL SKILLS

Cloud Technologies:

- ✓ **Amazon Web Services (AWS):** EC2, S3, RDS, VPC, Route 53, IAM, CloudFront, Elastic Load Balancer, CloudWatch, AWS Lambda, AWS Backup, Glacier, Storage Gateway
- ✓ **Cloud Migration:** Data migration from on-premises to AWS.
- ✓ **Storage Technologies:** Amazon S3, EFS, AWS Backup, iSCSI, NFS, SMB

Networking & Security:

- ✓ **Networking Protocols:** TCP/IP, DNS, BGP, HTTP, SSL, VPN, VLANs, IP Routing, DHCP, Load Balancing
- ✓ **Troubleshooting:** Network configuration, routing, switching, firewalls, Wi-Fi, and VPN issues
- ✓ **Security:** IAM, AWS Security Groups, ACLs, Firewalls, Security Patches, Data Encryption

System Administration:

- ✓ **Operating Systems:** Linux (Ubuntu), Windows Server.
- ✓ **Scripting & Automation:** Python, Shell scripting, Bash, PowerShell for system automation and infrastructure management
- ✓ **Monitoring & Performance Optimization:** System health monitoring, tuning performance using tools like CloudWatch and Nagios to maintain server uptime of 99.99%

Software Development & APIs:

- ✓ **Languages:** Python, JavaScript (React, Node.js), HTML, CSS
- ✓ **API Integration:** MPESA, AWS SDK, RESTful APIs, JSON
- ✓ **Version Control:** Git, GitHub, GitLab
- ✓ **Database Management:** AWS RDS (MySQL), DynamoDB, MongoDB, Microsoft SQL

Development Tools:

- ✓ React.js, Django, Flask for web development
- ✓ VS Code

SOFT SKILLS

- ✓ Problem-Solving
- ✓ Fluency in oral and written communication

PROFESSIONAL EXPERIENCE

Safaricom PLC | Nairobi, Kenya.
Intern [Network Department]   *October 2023–August 2024*

System Administration
- Monitored and maintained server performance, achieving 99.9% server uptime.

- Provided technical support to over 100 end-users, reducing average resolution time by 30%.
- Managed data backup processes and performed recovery operations.
- Developed and implemented advanced automation scripts using Python and Shell to streamline daily network maintenance, reducing manual intervention by 40% and improving response time to incidents.
- Conducted regular system and network audits, applying security patches and upgrades to mitigate risks, resulting in a 30% reduction in security vulnerabilities.

Internet of Things DevOps and Device Engineering
- Engaged in a cross-departmental collaboration within the IoT division, focusing on the smart water monitoring system. Worked closely with the core network team to troubleshoot and enhance NB-IoT SIM performance, achieving significant improvements in latency and data transmission.

Transmission and IP Planning
- Modelled and planned Transmission networks, ensuring optimal performance and reliability.
- Designed Microwave Radio Links, considering factors such as signal propagation, interference, transmission, and capacity requirements.
- Developed IP plans, addressing schemes, and routing configurations to support seamless data transmission.
- Enabled remote management of transmission network elements, enhancing operational efficiency. Leveraged NMS tools to monitor network systems and access nodes, proactively identifying and addressing issues.
- Provided technical support to the existing transmission systems in need basis. Conducted several site visits to verify network installations, ensure acceptance criteria were met, and facilitate recovery efforts when necessary.
- Collaborated with field engineers to address any on-site challenges and optimize network performance.

KTDA Ogembo Tea Factory | Kisii, Kenya.

System Administrator / IT Intern   *March 2021–May 2021*

- Implemented streamlined data tracking processes, resulting in a 30% reduction in wait time for farmers needing to access and track their data. Utilized spreadsheet software like Microsoft Excel to efficiently manage tea production, farmer payments, and financial data, enabling data-driven decision-making.
- Installed and configured LAN and WAN networks, providing reliable and secure connectivity for over 50 factory staff, reducing downtime and improving operational efficiency.
- Performed daily backup operations and disaster recovery procedures for critical systems, ensuring data integrity and quick restoration in case of failure.
- Provided desktop support for factory personnel, resolving hardware and software issues, including network printers, workstations, and applications.
- Implemented IT policies related to network security, resulting in a 25% improvement in system protection from malware and unauthorized access.

Onfon Media | Nairobi, Kenya.

Software Developer Intern   *August 2019–October 2019*

- Analyzed problems and worked with teams to develop solutions.
- Resolved Internet and wireless and wired network access problems.
- Supported team in backup and restoration of Microsoft SQL & PostgreSQL databases.
- Helped department set up equipment for meetings, events and operations.
- Installed application software and upgrades, virus protection, and drivers.
- Replaced defective components and upgraded office equipment per technology plan.

Achievements
- ✓ Leveraged expertise in PHP, Python programming, JavaScript, HTML, and CSS to develop custom solutions and user forms which enhanced interactive user experience.
- ✓ Attained a 95% success rate in resolving Internet and network connectivity issues, including troubleshooting wireless and wired network access problems, by employing Linux and Windows network troubleshooting tools, ensuring seamless operations.
- ✓ Assisted in the development of a RESTful API to integrate mobile payment solutions (MPESA), streamlining payment processes for customers.

EDUCATION AND TRAINING

Modcom Institute of Technology   **|** April 2024-Present
- ✓ Web Application Development – HTML, CSS, JavaScript
- ✓ Python Programming [Using Flask/Django]
- ✓ MPESA API Integration.
- ✓ Worked on real projects that are industry competent, developing both the front-end and backend systems.

Amazon Web Services (AWS) Re/Start Program | March 2024-August 2024
- ✓ Gained hands-on experience with fundamental AWS services in compute resources, networking, databases, security and billing.
- ✓ AWS Databases management [Migration from on-premise to Amazon RDS], Amazon Aurora, Amazon Dynamo DB.
- ✓ Developed proficiency in Linux, Python, networking, security, and relational databases.
- ✓ Managed and supported AWS environments, including provisioning EC2 instances, configuring VPCs, and integrating Route 53 for DNS management, ensuring optimal performance of AWS-based applications.
- ✓ *Certification: AWS Certified Cloud Practitioner.*

Jomo Kenyatta University of Agriculture and Technology | 2017-2022
- ✓ B.Sc. Telecommunication and Information Engineering
- ✓ Skills: Networking, IoT and Software development.

Google Africa Developer Scholarship | 2021-2022`

- ✓ Associate Cloud Engineer Skills: Cloud Computing (deploying and configuring Google Cloud Infrastructure), Machine learning and Big Data.

ACTIVITIES

- Community catalyst: Currently volunteering as a part-time IT tutor at Nyachenge Church of Christ Information Technology Training center.
- Digital Literacy: Equipping kids with coding skills through the Kids in Tech Program at Safaricom PLC.
- Led high school technology initiatives as an IT captain, demonstrating leadership and technical skills (providing technical support to fellow students and staff).

REFERENCES

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