# BUHLE NDLOVU

NETWORK ENGINEERING INTERN CANDIDATE | FINAL-YEAR BIT STUDENT

## CONTACT


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## EDUCATION

**Bachelor of Information Technology (BIT)**
Nelson Mandela University, Gqeberha, South Africa
2024 – Present (Final Year, Expected Completion: December 2026)

**Relevant Coursework:**
Communication Network Fundamentals (TCP/IP, IPv4/IPv6, subnetting, routing & switching), Network Management (AAA access control, QoS, performance monitoring), Network Optimization and Security (network design & security evaluation), IT Professional Practice.
Full academic transcript available on request.

**National Senior Certificate (Matric)**
Nelson Mandela High School
2023

## CERTIFICATIONS

**Intro to Cloud Engineering (AWS)**
AWS

## SUMMARY


Final-year Bachelor of Information Technology student at Nelson Mandela University with a strong academic foundation in network fundamentals, network management, and network security. Practical research experience in security-operations challenges (SOC alert fatigue) and secure, access-controlled system design through a role-based digital identity platform. Seeking a Network Engineering internship to apply and expand these skills in a live network environment.


## KEY PROJECTS

### Agentic AI for SOC Alert Fatigue

*Independent Research | Emerging Technologies Module | 2026 (In Progress)*

- Researching how autonomous, goal-directed AI agents can reduce alert fatigue in Security Operations Centres (SOC) by automating the triage, correlation, and prioritisation of security alerts.
- Proposing an application model for integrating agentic AI into existing SOC alert-management and monitoring workflows.

### UbuntuID — Digital Identity & Credential Verification Platform

*Final Year Project | Project Lead (Backend & UI/UX) | 2026 (In Progress)*

- Designing and building a web-based digital identity platform that lets citizens share verified credentials (national ID, qualifications, driver's licence, criminal-record status, and other government-linked records) with authorised organisations through a single trusted profile, without resubmitting physical or certified documents.
- Architecting a permissioned, role-based access model so that each registered organisation can only view the specific credentials it has been authorised to verify. The system applies privacy-by-design and secure information-sharing principles rather than open data access.
- Leading a project team while owning backend architecture and the overall user interface/experience design.

### IT Governance Case Study — SITA (State Information Technology Agency)

**Introduction to Cybersecurity**
Cisco Networking Academy

**Introduction to IoT**
Cisco Networking Academy

## TECHNICAL SKILLS

**Networking**
TCP/IP, IPv4/IPv6 & Subnetting, Routing & Switching Protocols, Network Design & Documentation, Network Troubleshooting, Port Security, QoS

**Security**
Network Security Evaluation, Access Control (AAA & RBAC), Security Policy, SOC Operations Awareness

**Systems**
Linux, Windows, Virtualization, Docker, SQL/SQLite Databases

**Cloud**
AWS (ECR, ECS), Terraform (Infrastructure as Code)

**Programming & Tools**
Java, C#, Python, Git/GitHub, Agile/Scrum

**Other**
Technical Documentation, Requirements Elicitation, Presentation & Communication Skills

## ACHIEVEMENTS

**Project Lead – UbuntuID Digital Identity Platform**
Final Year Project | 2026

**Bronze Award & Project Lead – SafeStep**
NMU SoIT Hackathon | 2026

**Lecturer Assistant Appointment**
School of IT (Applied Technology), NMU | 2026

**3x Merit Bursary Recipient**
Nelson Mandela University

*Research Project | IT Management & Governance Module | 2026 (In Progress)*

- Researching IT governance failures at SITA, South Africa's State Information Technology Agency, to identify root causes and contributing factors.
- Proposing a remediation and governance framework aimed at improving IT service delivery, accountability, and oversight.

### SafeStep — NMU SoIT Hackathon Safety Application

*Project Lead | Flutter, Supabase | 2026 (Bronze Award)*

- Led the team through ideation, prototyping and delivery of a campus safety app combining emergency support, safety, medical and mobility information, coordinating scope, tasks and the final presentation.

### ClaimZero — Cloud Deployment on AWS

*Practical Cloud Project | Docker, Terraform, AWS | 2026*

- Containerised a claims-processing application with Docker and deployed it to AWS, storing the image in Amazon ECR and running it on Amazon ECS.
- Defined the infrastructure as code with Terraform, including networking and deployment configuration.

## WORK EXPERIENCE & LEADERSHIP

### Lecturer Assistant

*School of IT (Applied Technology), NMU | Aug 2026 – Nov 2026, Current*

- Supporting lecturing staff with practical/tutorial sessions, student consultations, and assessment administration in IT-related modules.

### Examination Invigilator

*Department of Applied Technology, Nelson Mandela University | Feb 2026 – Jul 2026*

- Invigilated formal examinations and assessments, upholding academic integrity and institutional examination protocols.

### Residence Tutor (Volunteer)

*Nelson Mandela University | Feb 2026 – Jun 2026*

- Provided academic tutoring and peer mentorship to residence students across IT and foundational subjects.

## REFERENCES

Available upon request.