# BUHLE NDLOVU

SOFTWARE ENGINEERING INTERN CANDIDATE | FINAL-YEAR BIT STUDENT

## CONTACT


0845024718
epiphanyngwenya@gmail.com
buhle.ndlovuu@icloud.com
buhle-ndlovu.netlify.app
Cape Town, Western Cape
LinkedIn / GitHub


## EDUCATION

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

**Relevant Coursework:**
Database Design and Development, Integrated Enterprise Systems, Re-usable Design and Development, Interaction Design and Process Modeling, Applied Programming.
Full academic transcript available on request.

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

## CERTIFICATIONS

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

**Introduction to Cybersecurity**
Cisco Networking Academy

**Introduction to IoT**

## SUMMARY


Final-year Bachelor of Information Technology student at Nelson Mandela University with hands-on experience designing and building full-stack and enterprise-style software systems, including a role-based digital identity platform and a multithreaded desktop simulation applying core object-oriented design patterns. Strong foundation in database design, requirements engineering, and software architecture, combined with practical leadership experience as a project lead and lecturer assistant. Seeking a Software Engineering internship to apply and grow these skills in a professional development environment.


## KEY PROJECTS

### 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.

### Cool Rides Production Simulation — Design Patterns Project

*Group Project (4) | C# | Semester 1, 2026*

- Built a multithreaded C# desktop application simulating two concurrent vehicle assembly lines (car and minibus) sharing a single bottlenecked spray-booth resource, with a live GUI dashboard showing real-time status.
- Applied the Factory Method, Abstract Factory, Command, and Singleton patterns to structure parts construction, order queuing, and shared-resource

Cisco Networking Academy

## TECHNICAL SKILLS

**Languages**

Java, C#, Python, SQL, HTML/CSS/JavaScript

**Software Design**

Object-Oriented Design, Factory Method, Abstract Factory, Command & Singleton Patterns, UML, Multithreading/Concurrency

**Databases**

SQL Server/MySQL, SQLite, Database Modelling, Stored Procedures, N-tier Architecture

**Platforms & Tools**

Flutter/Dart, Supabase, Android Studio, Visual Studio, Git/GitHub, Docker, Terraform, AWS, Agile/Scrum

**Other**

Requirements Elicitation, UI/UX Design, Role-Based Access Control (RBAC), Web Security Protocols

## 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

management; delivered a working system, UML class diagram, and design document.

### 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.

### 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.