# **Ntuthuko Simphiwe Simelane**

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#### Education

North-West University, South Africa

Bachelor of Science in Information Technology (Expected: Nov 2025)

 Relevant Coursework: Data Structures and Algorithms, System Analysis and Design, Data Analytics, Statistics, Structured Programming, Apps and Advanced User Interface Programming, Information Security, Object Oriented Programming, Discrete Mathematics, Al, Decision Support systems, Computer networks, Databases, Python, R, SQL, SAS, Java, C++, C#, etc.

# **Experience**

# **Student Assistant - Communication Skills**

North-West University — Feb 2025 – Jul 2025

- Assisted lectures with grading, class preparation and academic support.
- Helped students with module content and peer reviews.

### Marker - Discrete Mathematics

North-West University — July 2025 – Present

- Assist lectures with marking tests and examinations.
- Further assist with invigilating during these tests.

# Peer Educator - NWU SALT (Students Advocating Leadership and Transformation)

Volunteer / North-West University — Aug 2025 – Present

- Help and educate fellow students about health, social and academic matters.
- Give support and refer students to the necessary professionals for additional assistance.

# Academic Advisor - Veritas Manskoshuis

North-West University — March 2025 – Present

- Assist students with their academic problems.
- Identity academic concerns experienced by students and addressing these concerns.
- Connect students to the relevant campus resources: tutoring-, career-, counseling services etc.

### **Projects**

# Healthcare Management System - C# and SQL

- Built a healthcare management system to atomate clinic operation, including patient, staff, appointment management, etc.
- Integrated advanced reporting tools to generate income information, prescription statistics, and patient information, supporting informed decision making.

Theme Park System - SQL, Oracle SQL developer

- Created a database system for a theme park to effectively oversee visitor experience, ride management, ticket sales, and employee duties.
- The system facilitates seamless monitoring of visitor preferences, ticket sales, wait times and ride upkeep.

**Office building network infrastructure and Text messaging app** – Python, Cisco Packet Tracer, Kali-Linux in Visual Box

- Designed and implemented a secure office building network infrastructure supporting over 100 users with VLAN segmentation, firewall protection, and VPN access for remote workers.
- Developed and integrated an internal messaging application, allowing non-confidential communication with centralized access control and secure remote availability.

### **Technical Skills**

Communication Languages: English, Zulu, Setswana, Sesotho, Sepedi, isiXhosa,

Programming Languages: Python, Java, C#, SQL, C++, SAS, R, JavaScript, HTML/CSS

Frameworks & Tools: React, .NET Forms, VS Code

Cloud/Other: GitHub, Google Colab, Microsoft Excel (advanced), Microsoft Power Point, Docker (basic)

### Reference

Student Assistant: NWU Lecturer - Nathan Morganrood (nathan.morgenrood@nwu.ac.za)

Marker: Martiens Venter (Martiens.Venter@nwu.ac.za)

NWU SALT: Mentor – Mr. Mario Chauque (082 513 9103)

Academic Advisor: HC – Mr. Ntando Mncwango (074 016 5809)