EMELY MOKGADI MACHETE

Address: 9418 Monate Street, Olievenhoutbosch, South Africa
Phone number: 071 979 8016
Email: macheteemely@gmail.com

SUMMARY

I am a final-year Information Technology student at North-West University, completing my degree in November 2025. My passion lies in crafting smart, reliable, and scalable technology solutions through programming, database design, and network simulation. I have built strong foundations in languages like Java, Python, C++, C# and enjoy turning technical challenges into opportunities for learning and collaboration. Now actively seeking entry-level opportunities for 2026, especially in Software development, FinTech, and HealthTech, where I can contribute to innovative projects, grow professionally, and make a meaningful impact through code.

CORE COMPETENCIES

- Software development and object-oriented programming

- Database design, modeling and SQL optimization

- Network simulation using cisco packet tracer

- System analysis, UML and ER diagrams

- Technical documentation and project presentation

- Collaborative problem solving and adaptability

- Cybersecurity fundamentals

- Critical thinking in coding

EDUCATION

Bachelor of Science in Information Technology *(In Progress)*
North-West University | Feb 2022 – Nov 2025

National Senior Certificate (Matric**)**
Ikageng-Barnato High School | June 2020

ACADEMIC PROJECTS

- **Eco Events Management System**

ASP.NET Core · MySQL · C# · MVC
Developed a full-stack event planning system with secure login, dashboard, and CRUD operations for events, vendors, and attendees. Integrated data validation, reporting, tooltips, and a user-friendly UI with master pages.

- **Secure Office Network Design**

Designed a multi-zone network in Packet Tracer with routing, subnetting, VPN, and remote access configurations to simulate secure office connectivity.

- **SQL Database System**

Created a normalized Oracle SQL database with a functional front-end. Included validation, interface logic, and user documentation. Delivered final system via Zoom presentation.

- **System Analysis & Design**

Conducted stakeholder interviews and system requirement analysis. Created UML diagrams, ER models, a data dictionary, and development timeline

- **Inventory & Logistics Systems**

Designed and optimized SQL databases for warehouse and logistics operations (Queens' Court & SwiftTrans). Applied 3NF, relational design, and advanced query logic.

- **Virtual Voting System**

Developed a secure online voting platform with login and role-based access. Documented backend logic and implemented security features for data protection.

TECHNICAL SKILLS

• Programming: Java, Python, C++, C#, C
• Web: HTML, CSS, JavaScript, ASP.NET Core
• Database: Oracle SQL, MySQL, query optimization
• Networking: Cisco Packet Tracer
• Tools: GitHub, MS Project, draw.io, Visio, UML, ER Diagrams

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LANGUAGES

- Sepedi – Native | English – Advanced | isiZulu – Intermediate

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REFERENCES

Available upon request.