NTUTHUKO MAPHALALA

📍 Pietermaritzburg, KwaZulu-Natal

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🔗 linkedin.com/in/ntuthukomaphalala | 💻 [GitHub](https://github.com)

PROFESSIONAL SUMMARY

Bachelor of Science in Computer Science and IT graduate with practical experience in software development, data analysis, automation, and networking. Proficient in developing AI-powered tools, visual dashboards, and full-stack applications. Skilled in SQL, Python, R, Microsoft Azure, Power BI, and cloud-based integration. Demonstrates strong problem-solving, attention to detail, and a passion for building innovative, data-driven solutions.

CORE COMPETENCIES

Data & Development:
SQL, Python, R, Excel, PowerApps, Power Automate, Jupyter Notebook

Networking & Infrastructure:
Network Protocols, IPv4 Addressing, Wireless Access, DHCP, CI/CD Pipelines, Azure DevOps

Data Visualization & Reporting:
Power BI, Tableau, Excel Dashboards, R (ggplot2)

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

Tools & Frameworks:
React.js, Node.js, Express.js, GitHub, Visual Studio Code, Eclipse, Cursor, SharePoint, Microsoft Azure, Home Assistant

Operating Systems:
Windows 10 & 11, macOS, Ubuntu

Soft Skills:
Problem-Solving, Attention to Detail, Communication, Team Collaboration, Adaptability

EDUCATION

Bachelor of Science in Computer Science and Information Technology
University of KwaZulu-Natal, Pietermaritzburg
Graduated: May 2023
Focus Areas: Software Development, Networking, Databases, Data Analysis, Cloud Technologies

PROFESSIONAL EXPERIENCE

Data and IT Development Intern
Institute for Commercial Forestry Research (ICFR), Pietermaritzburg
Aug 2024 – Present

- Developed a secure offline AI assistant using local LLMs to process and query internal PDF documents.

- Collected and analyzed forestry field data using R and Excel, improving data quality and insights.

- Automated reporting workflows, reducing report generation time by 40%.

- Built Home Assistant integrations for Sunsynk inverters and sensors for real-time system monitoring.

Business & Data Analyst – BMW YES Programme
Afrika Tikkun Services, Pietermaritzburg
Mar 2024 – Jul 2024

- Managed and cleaned over 900 student records in SA-SAMS, reducing data errors by 10%.

- Wrote SQL queries to track, validate, and report academic performance metrics.

Azure Cloud Architect Apprentice
Deviare (Microsoft Interprovincial Apprenticeship), Remote
Sep 2023 – Mar 2024

- Developed scalable Azure-based apps and optimized cloud infrastructure.

- Built CI/CD pipelines that cut deployment time by 50% and improved reliability.

- Applied principles of virtualization, networking, and security for enterprise cloud solutions.

PROJECTS & INNOVATIONS

Microsoft Copilot AI Coaching Bot
Created an AI-powered virtual assistant using Microsoft Azure and OpenAI to deliver coaching insights.

🔗 [Live Demo](#)

FNB App Academy Capstone
Built full-stack web applications using React, Node.js, and Express.js. Employed API integration and responsive design best practices.

🔗 Project link available upon request

TechGuard IT Solutions Website
Designed a professional IT solutions website with cloud-integrated contact and services sections.

🔗 [Live Demo](#)

PowerApps Lifestyle Survey App
Developed a SharePoint-integrated app with automated data collection and analytics via Power Automate.

Pong Game Project
Created a classic Pong game using HTML, CSS, and JavaScript.

🔗 [Play Now](#)

ICFR Inspection & Automation Systems
• Created a digital inspection app for fieldwork using PowerApps (Microsoft login required).
• Built real-time dashboards through sensor integrations in Home Assistant.

Portfolio Website
Responsive site showcasing work and experience.

🔗 [View Portfolio](#)

CERTIFICATIONS

- **Networking Basics –** Cisco Networking Academy, 2025

- **Azure Cloud Architect –** Deviare, 2023

- **FNB App Academy –** Itvarsity, 2025

- **Tableau 2024.1 Essential Training –** LinkedIn Learning, 2025

- **Power BI Essential Training –** LinkedIn Learning, 2025

- **Introduction to Data Science –** LinkedIn Learning, 2025

- **Data Visualization with R –** Cognitive Class, 2024

- **R for Data Science –** Cognitive Class, 2023

BADGES

- **Cisco Networking Basics (2025):** Mastered core concepts of IP addressing, routing, and network protocols.

AVAILABILITY & REMUNERATION

Available immediately, subject to a 2-week notice period.
Remuneration is negotiable and aligned with company budget.

REFERENCES

Available upon request.