Ntuthuko Maphalala

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Location: Pietermaritzburg, KwaZulu-Natal

Professional Summary

Bachelor of Science in Computer Science and IT graduate with practical experience in data analysis, reporting automation, and software development. Proficient in SQL, Python, R, and Excel for data collection, cleaning, and analysis. Skilled in creating dashboards using Power BI and Tableau. Experienced in developing low-code solutions with PowerApps, automating workflows with Power Automate, and integrating data via SharePoint. Strong analytical thinker with excellent attention to detail and collaboration skills. Passionate about applying data-driven insights to solve real-world problems.

Core Skills

- Data Analysis: SQL, Python, R, Excel
- Data Visualization: Power BI, Tableau, Excel Charts
- Database & Reporting: Data cleaning, SharePoint integration, report automation
- Programming: Python, R, Java, C++, C#, JavaScript
- Tools & Platforms: PowerApps, Power Automate, Microsoft Azure, GitHub, Jupyter Notebook
- Soft Skills: Problem-solving, Communication, Attention to detail, Teamwork

Education

Bachelor of Science in Computer Science and Information Technology

University of KwaZulu-Natal, Pietermaritzburg May 2023

Focus Core areas included software development, database systems, data analysis, and cloud technologies. Completed projects involving the development of data dashboards and reporting tools, applying programming, SQL, and cloud-based solutions.

Professional Experience

Data and IT Development Intern (Eucalypt Tree Improvement)

Institute for Commercial Forestry Research (ICFR) August 2024 – Present

• Collected field data and id analysis using R language, and Excel.

• Collaborated with research teams to improve data quality, accessibility, and reporting accuracy using Excel and R

Business and Data Analyst - BMW YES Programme

Afrika Tikkun Services March 2024 – July 2024

- Managed over 900 student records in SA-SAMS with 10% error reduction
- Implemented SQL validation scripts for academic performance tracking

Azure Cloud Architect Apprentice

Deviare

September 2023 - March 2024

- Developed cloud-based applications and improved Azure resource efficiency
- Built CI/CD pipelines for automated deployment and performance optimization

Projects and Innovations

Pong Game Project

Developed a browser-based Pong game using HTML, CSS, and JavaScript

Link: https://ntuthukomaphalala.github.io/pong/

Microsoft Copilot AI Coaching Bot

Built an AI-powered coaching assistant chatbot using Microsoft Azure and OpenAI

Link: https://ntuthukomaphalala.github.io/ai-coaching-bot/

TechGuard IT Solutions Website

Created a cloud-integrated IT services platform

Link: https://ntuthukomaphalala.github.io/techguard/

PowerApps Lifestyle Survey App

Designed a data collection survey app integrated with SharePoint and automated with Power Automate

Personal Portfolio Website

Developed a responsive portfolio website

Link: https://ntuthukomaphalala.github.io/portfolio/

ICFR Automation Solutions

Integrated smart device workflows with Home Assistant for process automation

Inspection App (PowerApps)

Designed a PowerApps tool to digitize and streamline field inspections

Note: Requires Microsoft login

GitHub Portfolio

Additional software and data science projects Link: https://github.com/ntuthukomaphalala

Certifications

- 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)
- Azure Cloud Architect Deviare (2023)

References

Available upon request.