NTSHUXEKO MATHEBULA

Analyst

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WEBSITES, PORTFOLIOS, PROFILES

- My LinkedIn Profile
- My GitHub
- My Portfolio

PROFESSIONAL SUMMARY

Analyst with experience in Python, SQL, Power BI, and machine learning. Skilled at turning complex data into actionable insights, building dashboards, and deploying models using tools like Docker, Heroku, and MATLAB SDK. Strong communicator with a passion for solving real-world problems through data.

SKILLS

- **Programming & Data:** Python, MATLAB, SQL, DAX, Power Query, Pandas, NumPy
- **Data Analysis & Modelling:** EDA, statistical modelling, Monte Carlo simulation, forecasting, scikit-learn
- **Visualization & BI Tools:** Power BI, Tableau, MS Excel, Matplotlib, Seaborn
- **Database Solutions:** MS SQL Server, MySQL, MongoDB
- **Software Engineering:** OOP, TDD, Git, GitHub, SourceTree, code debugging and refactoring, MVP, application development, reporting
- **Soft Skills:** Analytical thinking, problem-solving, communication, stakeholder engagement, collaboration, proactivity, team player
- **Deployment:** Vercel, MATLAB Compiler SDK, RESTful API’s (Node.js & Flask), Docker (Basic)

WORK HISTORY

Consultant, 02/2025 - Current

Opti-Num Solutions – Hybrid

- Account KPI tracking.
- Data visualization
- Dashboarding
- Client interaction and client relationship management.

Junior Consultant - Software Engineering, 08/2023 - 01/2025

Opti-Num Solutions – Hybrid

- Managed tech support team and queue.
- Conducted research for client projects.
- Created project documentation.
- Developed and delivered tailored software engineering solutions to stakeholders.
- Analyzed industry and visualized data trends that drove strategic decision making by stakeholders.
- Designed and developed stakeholder applications.
- Data analytics, processing, visualization and machine learning with Python and MATLAB.
- Leveraged ML techniques and Monte Carlo simulations to model long-term customer activity and banking profitability.

Graduate Software Engineer, 02/2023 - 07/2023

Opti-Num Solutions – Johannesburg

- Collaborated with cross-functional teams to ensure seamless integration of new features.
- Agile software development.
- Presented technical concepts clearly during team meetings
- Conducted regular code reviews to maintain high-quality standards across the team's output.
- Streamlined existing codebase, improving overall system efficiency and reliability.
- Developed user-friendly applications for improved end-user satisfaction.
- Data processing, analytics and visualization with MATLAB and Python.

BI Graduate, 09/2022 - 01/2023

Fraser Alexander – Rustenburg, South Africa

- Identify risks and inefficiencies in workflows.
- Designing and Maintaining Power BI dashboards.
- Worked effectively in fast-paced environments.
- Worked well in team setting, providing support and guidance.
- Assisted with day-to-day operations.
- Leveraged critical thinking to break down problems, evaluate solutions and make decisions.
- Data processing, analytics and visualization with MS Excel and Power BI.

EDUCATION

BSC (HONOURS): ENGINEERING (METALLURGY AND MATERIALS), 12/2022

University of The Witwatersrand - Braamfontein, Johannesburg

Design and research projects, data analytics and coding coursework, as well as committee experience.

- Distinctions in Physical Chemistry (2019) and Mathematics (2018), B in Structures and Properties of Engineering Materials (2020) and Research Project (2021).

PROJECTS

Data Science & Analytics Projects

Customer Churn Prediction System:
Predictive Analytics for Telecommunications

- Built a machine learning system to predict customer churn based on historical subscription data.
- Applied feature engineering, model tuning, and evaluation techniques to maximize accuracy.
- **Tech Stack:** Python, pandas, NumPy, scikit-learn, imbalanced-learn, XGBoost, seaborn, matplotlib, pickle.

NBA MVP Prediction System:
Web-Scraped Machine Learning Ranking Model

- Designed a predictive model that ranks top 5 NBA players for MVP selection in each season.
- Implemented web scraping pipelines to collect real-time player statistics for analysis and training.
- **Tech Stack:** Python, BeautifulSoup, Selenium, pandas, scikit-learn, matplotlib, seaborn.

Business & Operations Dashboards

Actual & Forecast Revenue Dashboard:
Revenue Analytics Web Application – Opti-Num Solutions

- Engineered a web-based system for automated analysis of actual vs. forecasted revenue data.
- Delivered interactive dashboards highlighting MoM variances and business insights.
- **Tech Stack:** MATLAB, Python, MS SQL Server, MATLAB Compiler SDK, RESTful APIs, Docker.

Technical Support Dashboard:
Performance Analytics Tool – Opti-Num Solutions

- Developed a web application to visualize technical support metrics and incident trends.
- Enabled real-time stakeholder insights through dynamic data visualizations.
- **Tech Stack:** MATLAB, MySQL, MATLAB Compiler SDK.

KPI Tracking Dashboards BTT Remining:
Real-Time Plant Performance Monitoring - Fraser Alexander

- Build Power BI dashboards tracking KPIs such as production rates and revenue levels in real-time.
- Integrated data from MS Excel and other plant systems for centralized operational monitoring.
- **Tech Stack:** MS Excel, Power BI

CERTIFICATIONS

- Introduction to Git and GitHub | MathWorks | 2024
- Deep Learning Onramp | MathWorks | 2023
- Machine Learning with MATLAB | MathWorks | 2023
- Object Oriented Programming | MathWorks | 2023
- Machine Learning Onramp | MathWorks | 2023
- Crash Course on Python | Google via Coursera | 2022
- Exploratory Data Analysis with MATLAB | MathWorks | 2022
- Python Project for Data Science | IBM via Coursera | 2022
- Statistics for Data Science with Python | IBM via Coursera | 2022

- Python for Data Science, AI | IBM via Coursera | 2022