Tendai Mbwanda

Address: Rotterdam, Netherlands   **Email**: tmbwanda@yahoo.com

GitHub: https://github.com/tendaiwbm

Phone: 0682821145

Professional Summary

Curious engineer with a keen interest in using code to unravel data complexity. Possess 2 years' experience comprising **Python**, **SQL** and C++. Currently developing an **analytics** application to be used internally by individuals affiliated with the Impact Based Forecasting tool developed by the Rode Kruis 510 team. Azure AZ-900 certified, and working towards attaining the DP-900.

Skills

Python | SQL | Azure - Data Factory, Log Analytics | JavaScript, jQuery | Bash | Git | Docker

Core Competencies

(Database) Programming | API Development | Data – Analysis, Modelling & Management | Machine Learning | Unit Testing

Work and Volunteering Experience

07/2024 -   510 Volunteer – Impact Based Forecasting,
                           Rode Kruis Nederland

Projects
1. Analytics (Dashboard)

    Python | GitHub | Docker | **Azure** – Log Analytics | Kusto Query Language (KQL)
    - The goal of this project is to extract and visualise insights about the usage of the IBF platform from **analytics** data to guide future development based on user interactions.
    - Developed cursor-based pagination based on Azure Log Analytics and the Kusto Query Language to support a tabulation feature (ongoing) on the front-end.

04/2024 -   Data Engineer,
                           Clever°Franke BV

Projects
1. Boeing Aerospace Safety Timeline

    Python | **PostgreSQL** | **Azure** - Data Factory, Database (PostgreSQL) | Docker
    - Streamlined the collaboration workflow with the client, enabling us to give input in the client's decision-making process at an earlier stage, and reducing redundant feedback loops.
    - Connected 5 datasets from the National Transport Safety Board (for the actual data, see Avall, PRE1982, Pre2008), Cirium Aviation Analytics and Aviation Safety Network to add more (meta)data to the platform.
    - Utilised multiprocessing to perform link validation and reduce processing time by 40 minutes.
    - Developed data processing scripts and database tables that drove the design and development of 7 new features on the timeline including image carousel, data panels for collisions and clickable metadata like engine type.

- Redesigned the data input mechanism from file-reading at runtime to a database-centric data retrieval system, realising the following benefits:
  - Query-ready data.
  - More efficient development in the absence of file-reading overhead.
- Eased the environment setup and developer onboarding experience by stabilising the development environment using containers.

2. Type I Diabetes Index
   Python | **PostgreSQL**
   - Developed the data component of a tool that lets the client automatically update the dataset on the platform. The tool has the following capabilities:
     - Schema validation to ensure the same data structure is maintained.
     - Piping validated data to the existing pipeline for processing.
     - Performing post-processing tests and creating a new production database.
     - Decommissioning the current production database and switching to the new one.

12/2022 – 05/2023	GIS Intern, The Netherlands Organisation for Applied Scientific Research **Python** | C++
05/2019 – 06/2021	GIS Engineer, D. Chigumbu Land Surveyors **Python** | JavaScript | **PostgreSQL** | Bash

Responsibilitites
1. Writing scripts to automate tasks for Surveyors.
2. Co-developing new applications in contribution to *new business* efforts to attract clients from diverse domains. Specifically, in farming and the NGO sector.
3. Managed 3 geographic databases with data about 472000 surveyed land parcels by
   a. continuously improving the database structure,
   b. developing functions to automate fetching data for less technical colleagues,
   c. enforcing permissions and putting safeguards in place to maintain data quality.

Education

08/23 – 12/23	Dutch for Foreigners (A0 – B2) Delft University of Technology
09/2021 – 06/2023	MSc Geomatics Engineering Delft University of Technology

Projects:
1. Building Heating Demand Analysis
2. **3DCityDB-Tools for QGIS**

09/2015 – 07/2019	BSc Geographic Information Science and Earth Observation

Certifications

Microsoft	Microsoft Azure Fundamentals