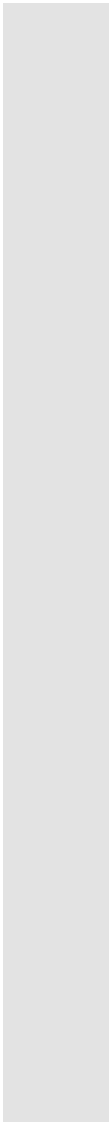# Tanzanian Water Wells

By Jonathan Nunez

7/14/2025

Overview

The country of Tanzania struggles with providing clean water to its population. Many established water points throughout the country need repairs while others have failed altogether.

- Effectively and efficiently allocate the resources
- Predict which water points need repairs
- Model built: KNN model with 83% accuracy

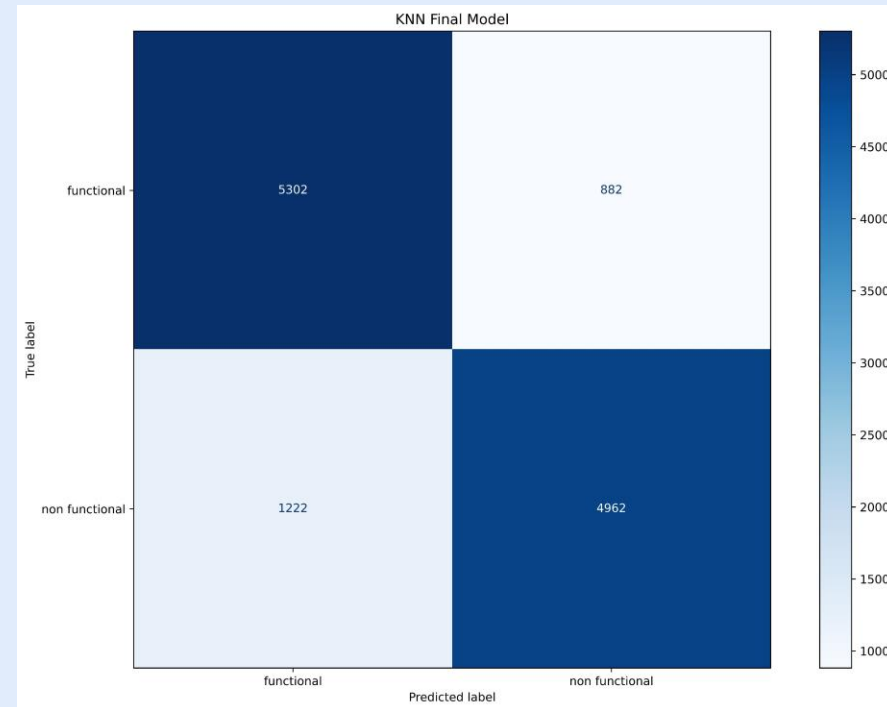# Business and Data Understanding

- Problem: "Non functional" Tanzania water points
- Goal: Predict water points in need of repairs
- Data from Taarifa and Tanzanian Ministry of Water

Modeling

- Why a Classification model?
- K-Nearest Neighbors (KNN)

Evaluation

- Overall model performance
- Confusion Matrix

Recommendations

- Verify model predictions
- Up to date data
- Gather water point usage data

Next Steps

- Model fine Tuning
- Test other/more models
- Gather more data

Thank You