



Waterpoints in Tanzania

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Phase 3 Project

Overview

"Tanzania, as a developing country, struggles with providing clean water to its population of over 57,000,000. There are many waterpoints already established in the country, but some are in need of repair while others have failed altogether."

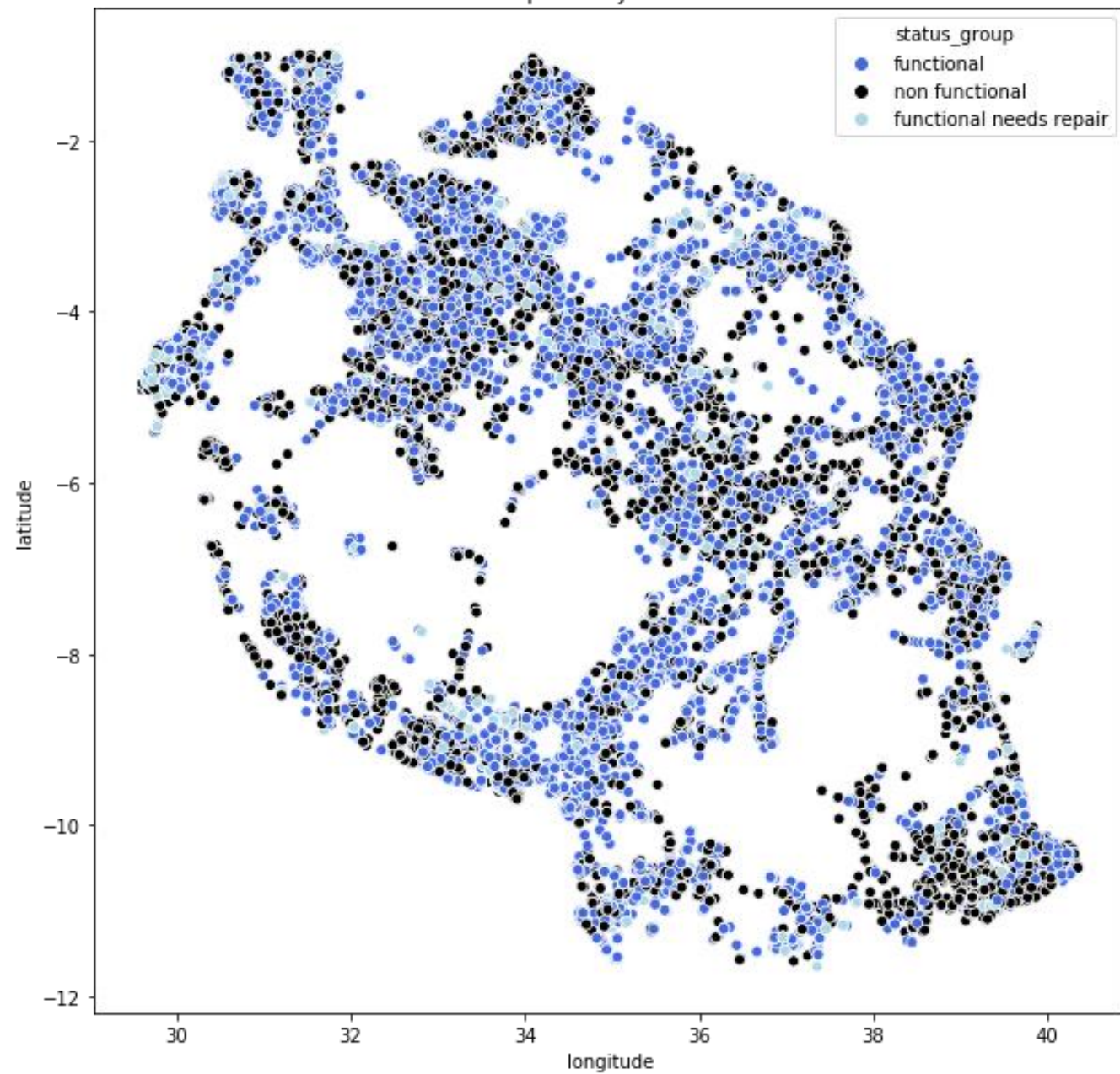
-drivendata.org

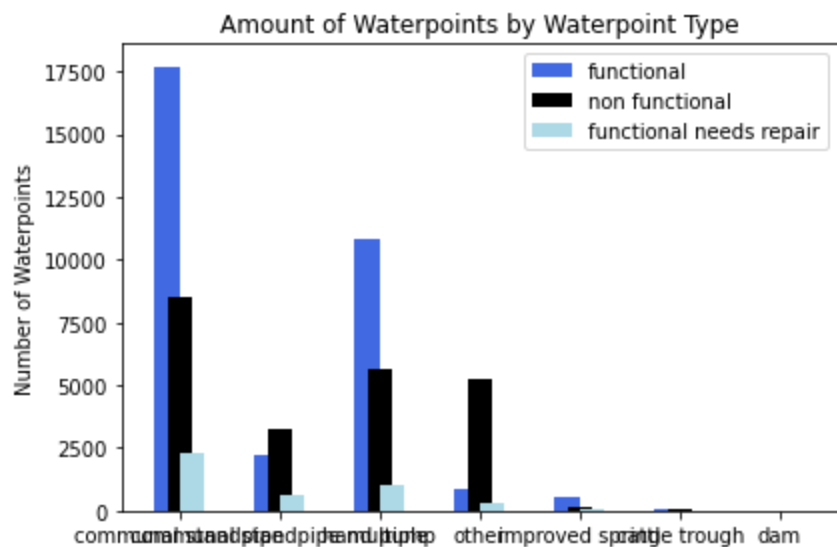
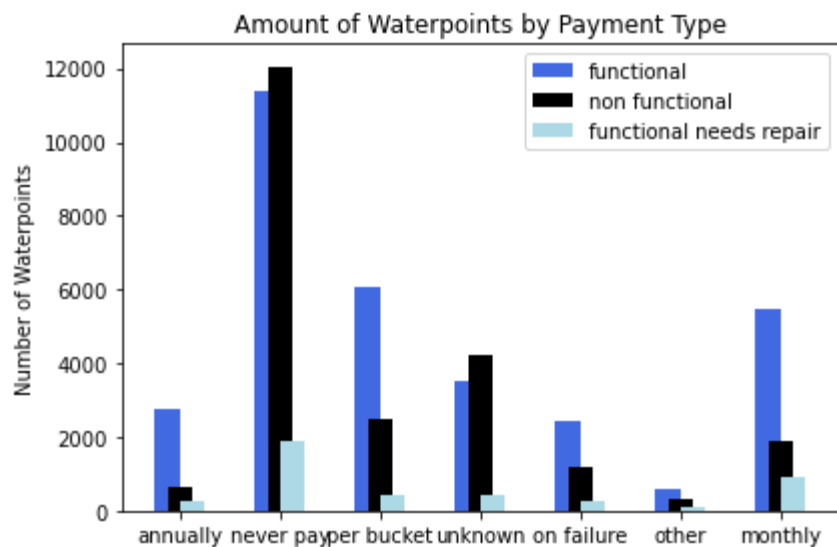
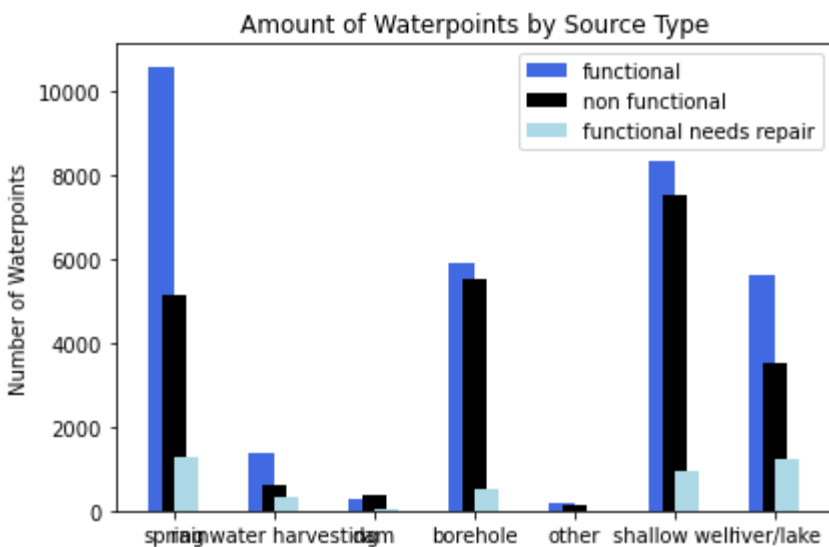
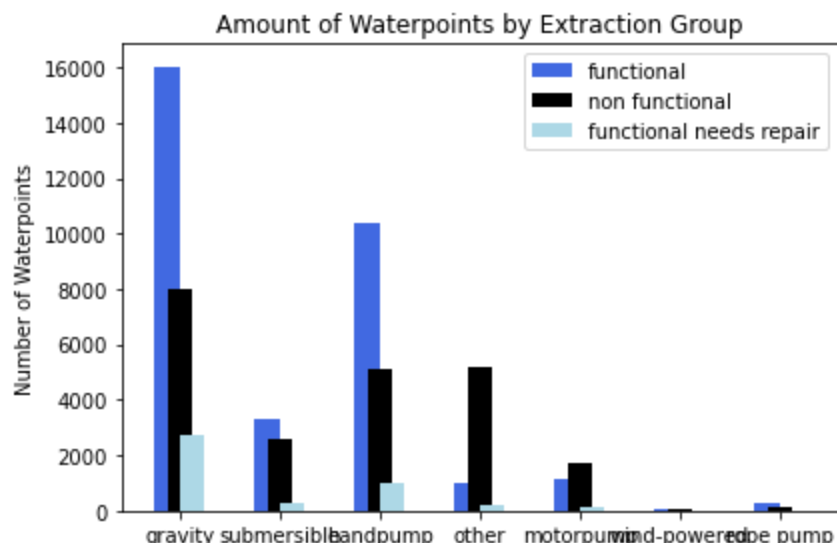
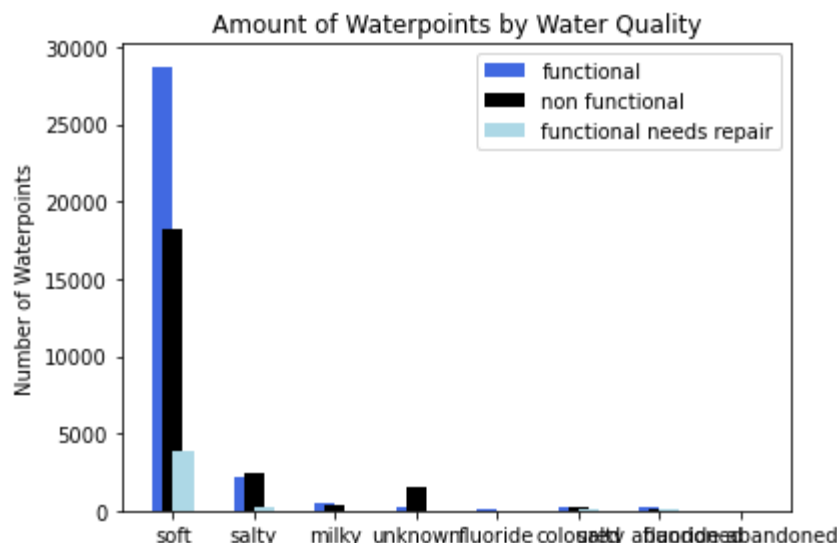
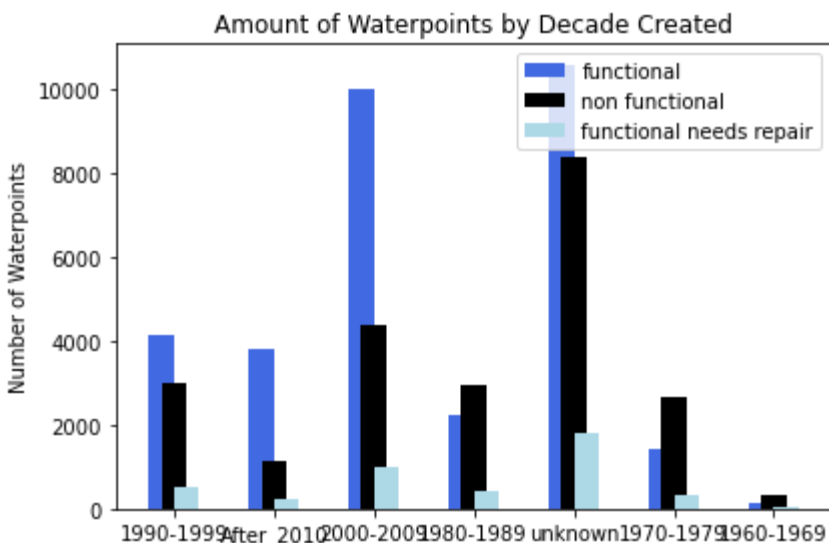
What determines waterpoint functionality?

The Data



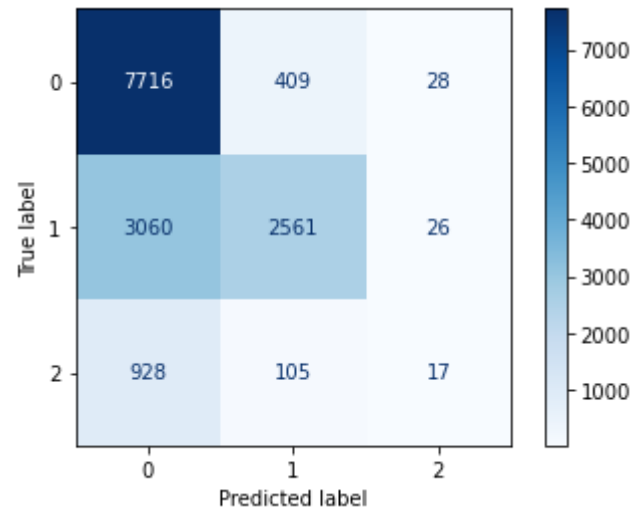
Status of Waterpoints by Location in Tanzania





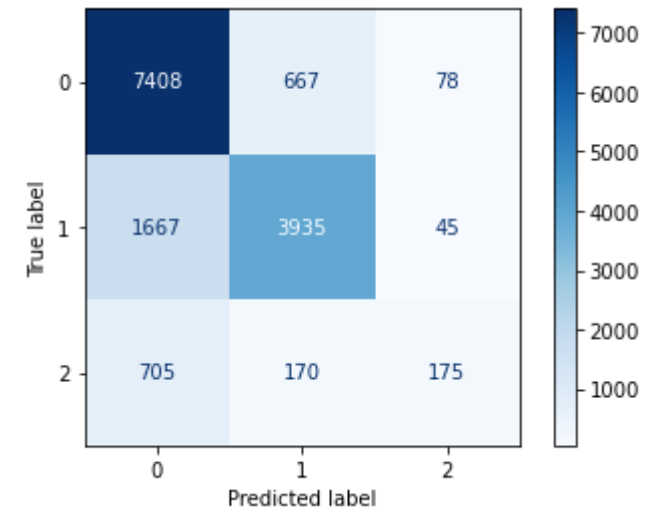
Models

Gaussian Naïve Bayes



Accuracy Score (Train): 68.77% Accuracy Score (Test): 69.32%

XGBoost

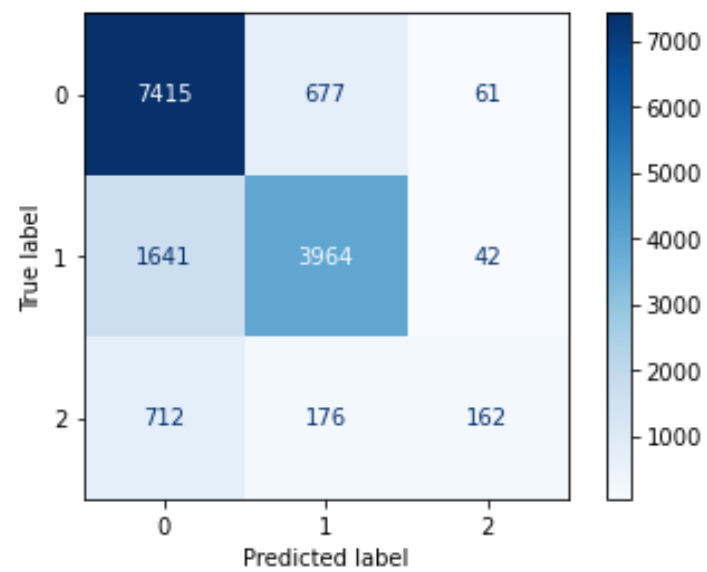


Accuracy Score (Train): 78.79% Accuracy Score (Test): 77.56%

Where 0 = Functional, 1 = Nonfunctional,
2=Functional but Needs Repair



Random Forest

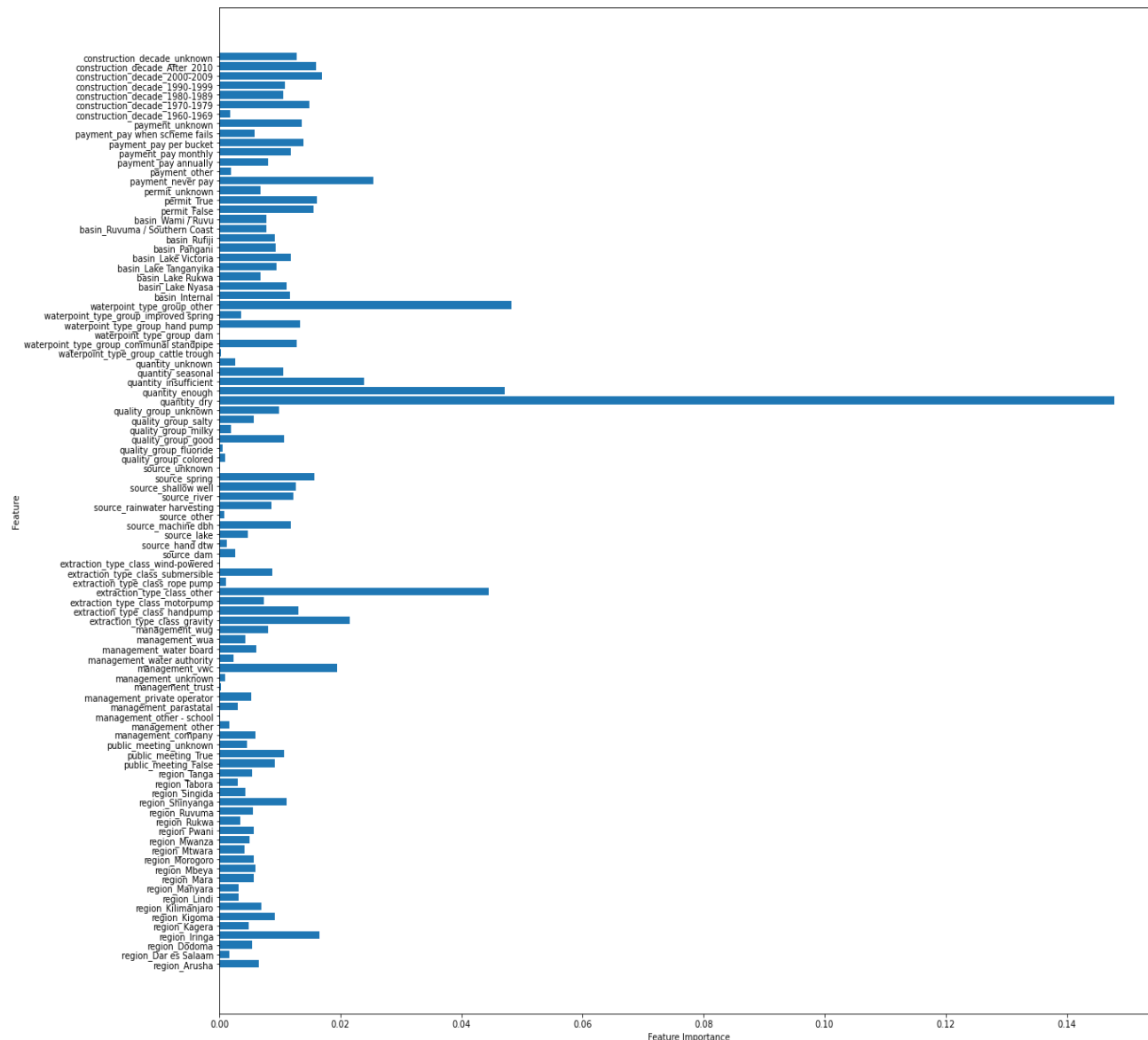


Accuracy Score (Train): 80.02% Accuracy Score (Test): 77.72%

*Where 0 = Functional, 1 = Nonfunctional,
2=Functional but Needs Repair*

Driving Features

- Quantity (dry, enough)
- Waterpoint Type (other)
- Extraction Type (other)
- Payment Type (never pay)
- Management (vwc)





Summary

- Resources
 - Quantity
- Characteristics
 - Waterpoint Type
 - Extraction Type
- Management
 - Payment Type
 - Management Group



Thank You

