

A photograph of a water pump system. A large, dark wooden pipe is angled downwards, pouring a stream of water into a rough-hewn stone basin. To the right of the basin, there is a black metal railing with vertical bars. The background is filled with lush green foliage, and the scene is brightly lit by sunlight, creating strong shadows on the stone.

Tanzanian Water Pumps

Helping to ensure those in need
have access to safe water

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**Tanzania is a nation of 59M
people.**

**28% (16M) lack access to clean
water**



Our Problem

Finding a way to anticipate malfunctions in water pumps before they happen

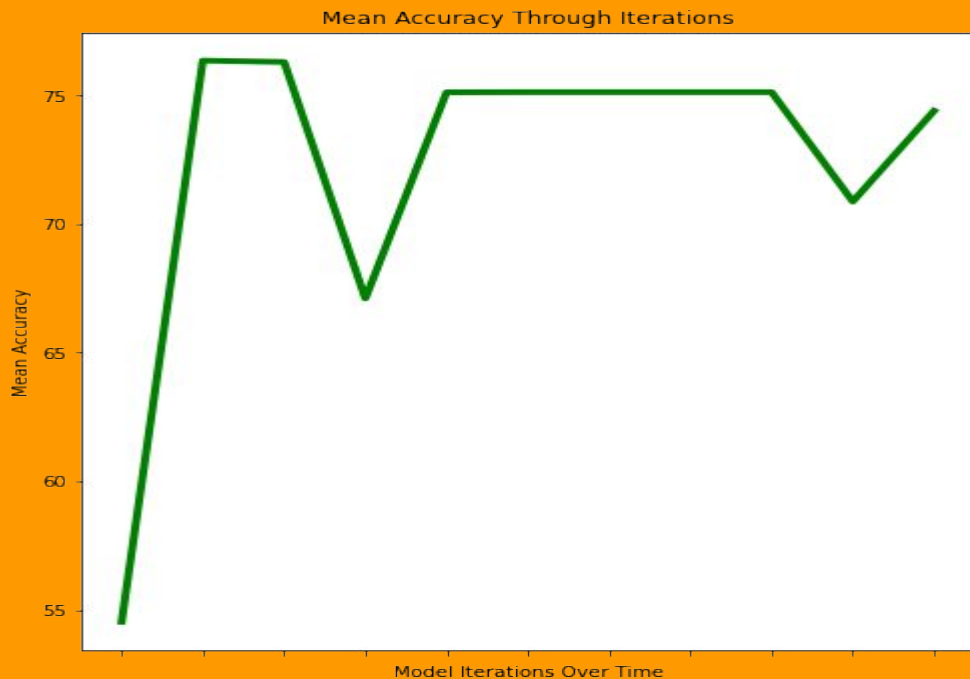
Quicker repair means fewer people suffering from lack of access to water



Process

- **Data Evaluation**
40 Feature Columns
- **Model Manipulation**
Fine Tune Model Characteristics
- **Determine Best Model**
Use Classification Metrics

Progress is not linear



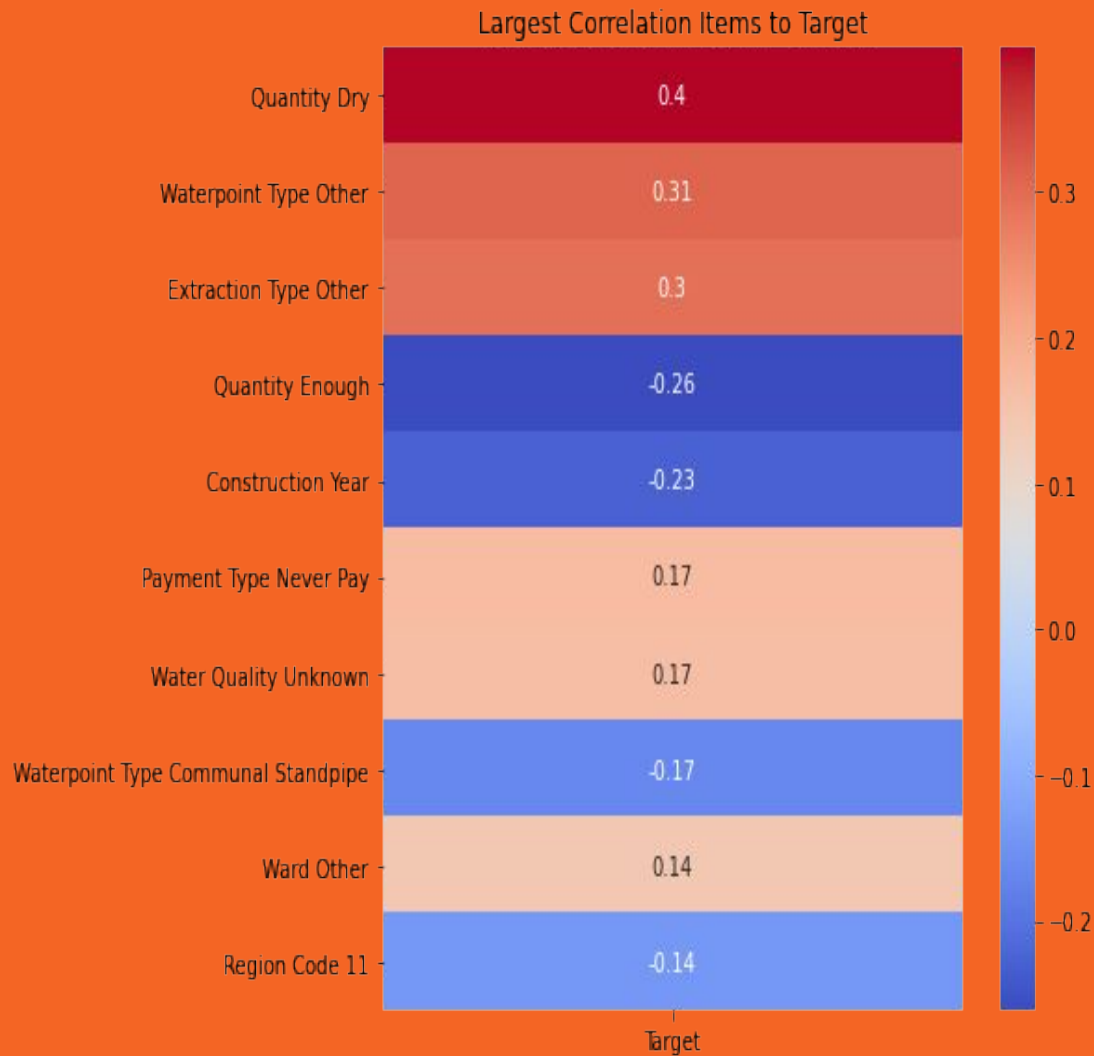
Model Performance

Mean Accuracy

Maximized at 76.4%



Strongest Contributing Factors:

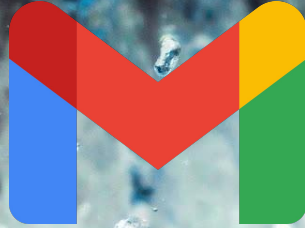


Next Steps:

- Improve Data Collection
- Assess Cost of Repair vs Replacement
- Investigate Alternative Water Harvesting Technology



Adopt our model, and
help save lives!



Thank you for your consideration!

