# Tanzanian Water Project





## Apex Flow DS

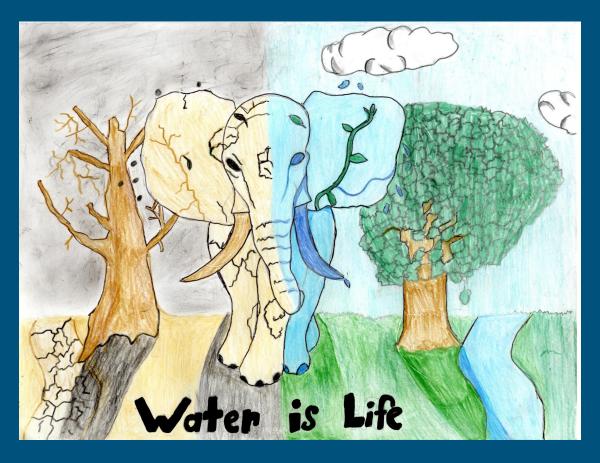


### William Norton Jr

**Data Scientist** 

Github / Linkedin

### Access to clean water is essential



## Presentation Flow

The Problem

The Data

Results & Recs

The Future

Modeling

### Many Wells Are Broken or Need Repair



 4 in 10 Tanzanians lack accessible, safe water

Over 1 in 3 groundwater sources contaminated

### The Data

- Original Source: Tanzania Ministry of Water
- Years recorded2002-2013
- Lat/Long, Water quality, etc







# Modeling

Predictive

- Priorities
- Don't miss broken
- Finite resources

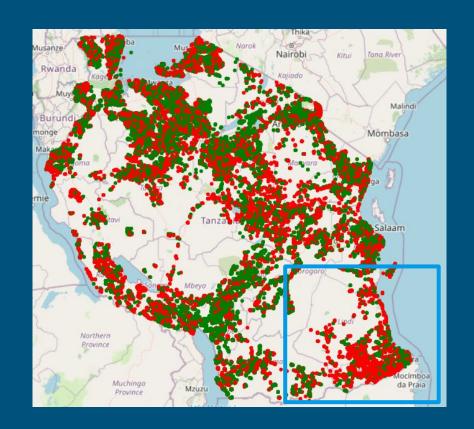


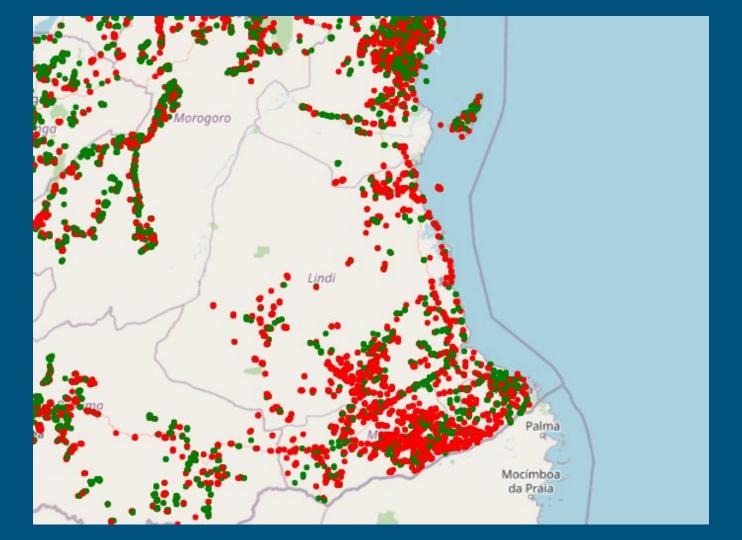
### 75% Recall

81% Accurate

#### Key Features:

- Location
- Well Age
- Population





#### Recommendations

- Use model to efficiently deploy engineers
- Prioritize older wells
- Focus on Southeast



### **Future Considerations**



- Investigate Effect of Rainy/Dry Seasons
- Model cost/benefit of water source types
- Remote water monitoring

#### Appendix

Slide 1: Children & wells accessed 4/21/22

Slide 3 Water is life accessed 4/21/22

Slide 4 Rufuji River accessed 4/21/22

Slide 5 Image of Girl with water accessed 4/21/22, Groundwater facts 4/21/22

Slide 6 Ministry of Water logo accessed 4/21/22, Taarifa logo accessed 4/21/22, Driven Data logo accessed 4/21/22

Slide 7 <u>Denver Post</u> accessed 4/21/22

Slide 10 Old Well accessed 4/21/22

Slide 11 Rainy Season in Tanzania accessed 4/22/22