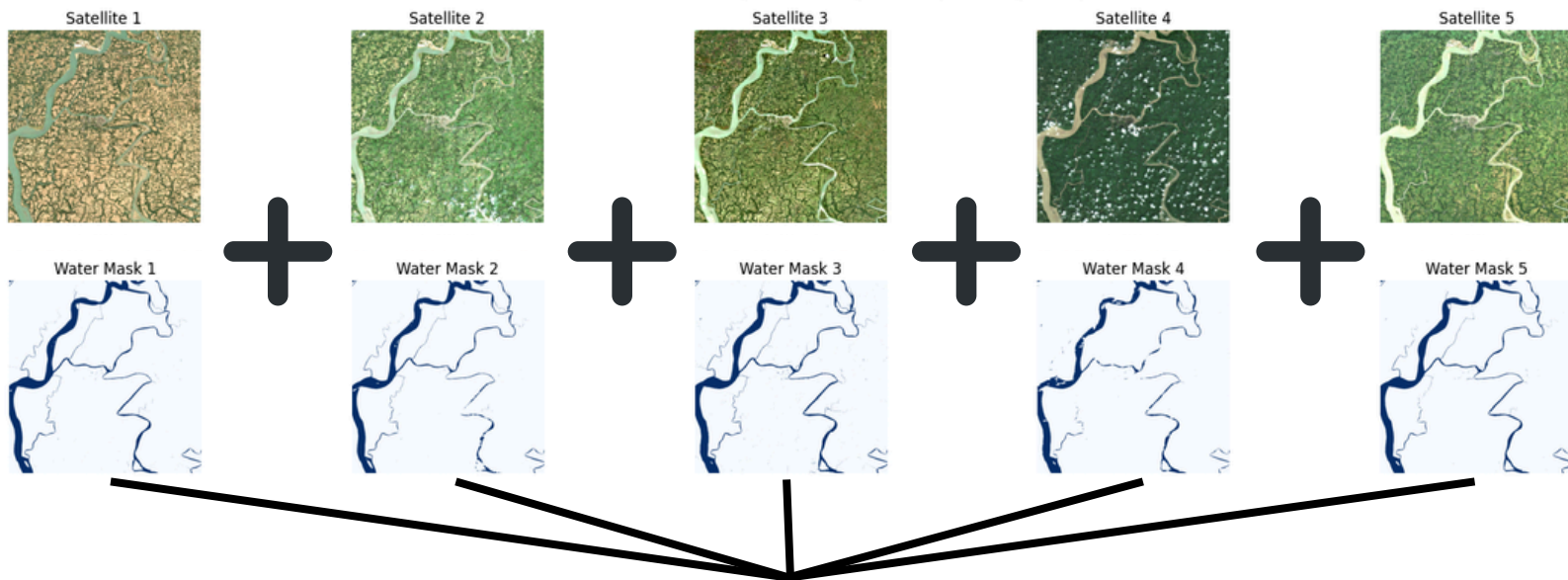


# Supervised Learning

## Preprocess Training Data



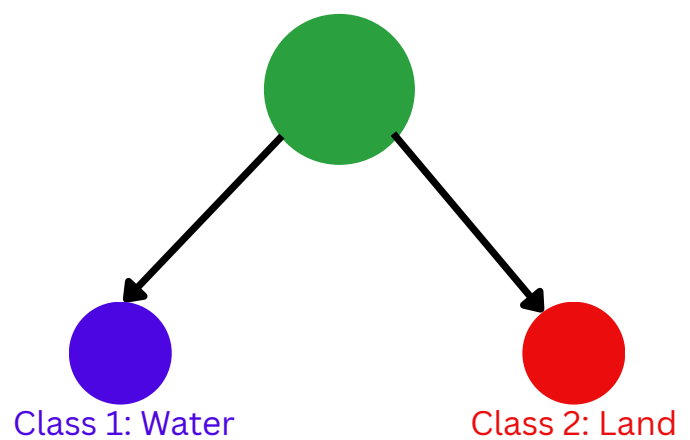
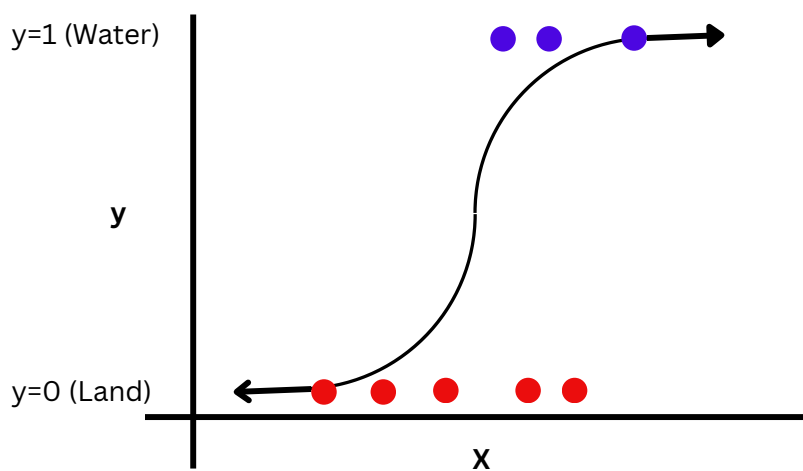
Matrices:

$[X_{all}]$

$[y_{all}]$

Logistic Regression

Random Forest



Test

Original RGB Satellite Image

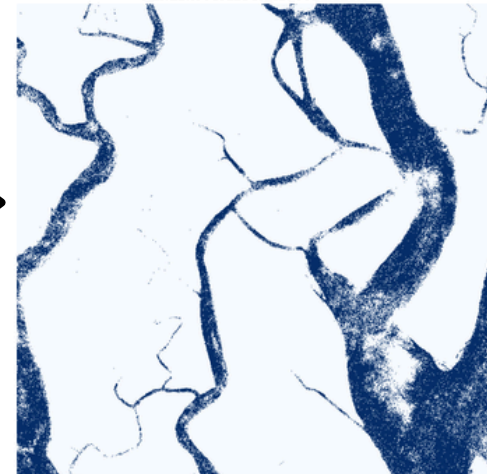


Predict

Logistic Regression Water Prediction

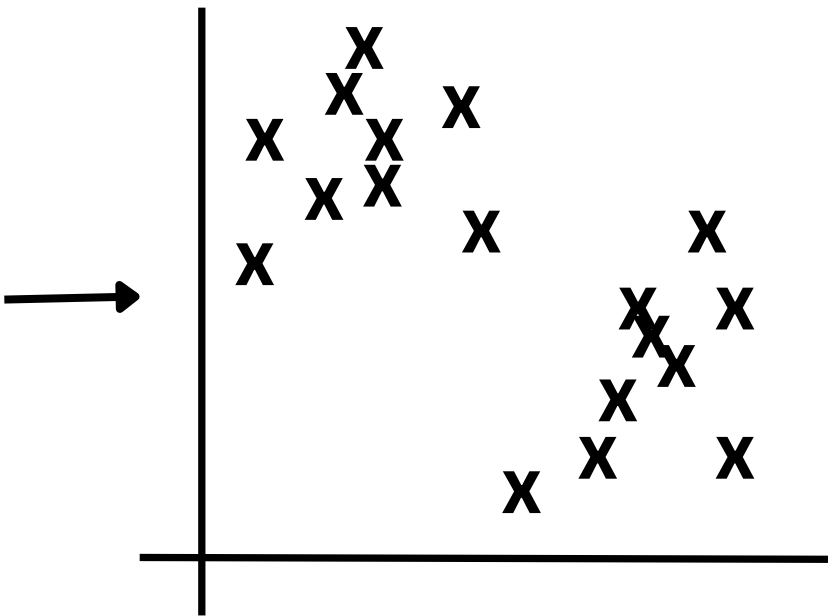


Random Forest Water Prediction



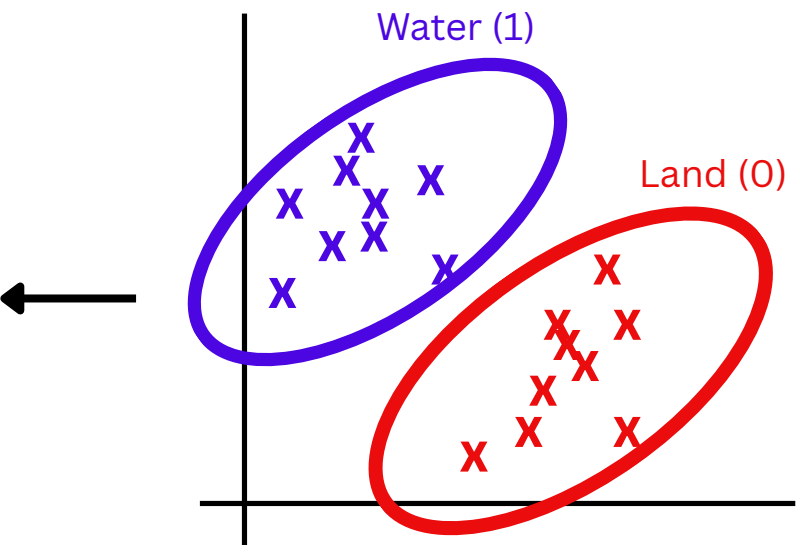
# Unsupervised Learning (K-Means)

Input data:



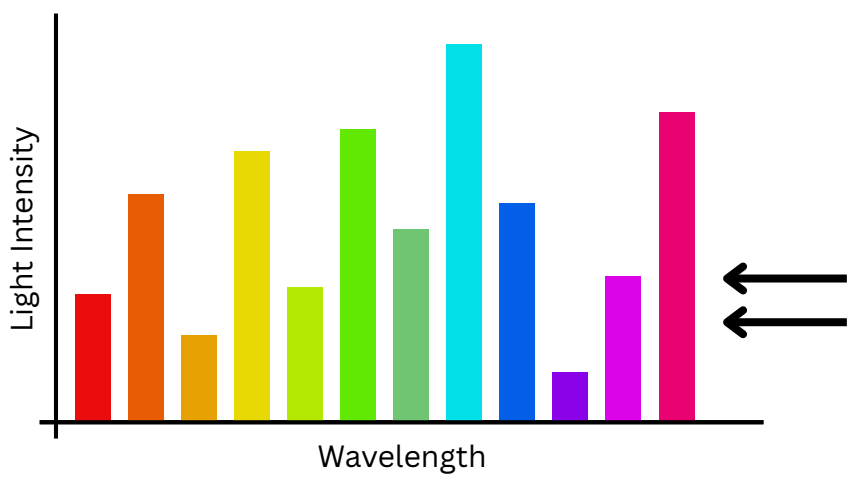
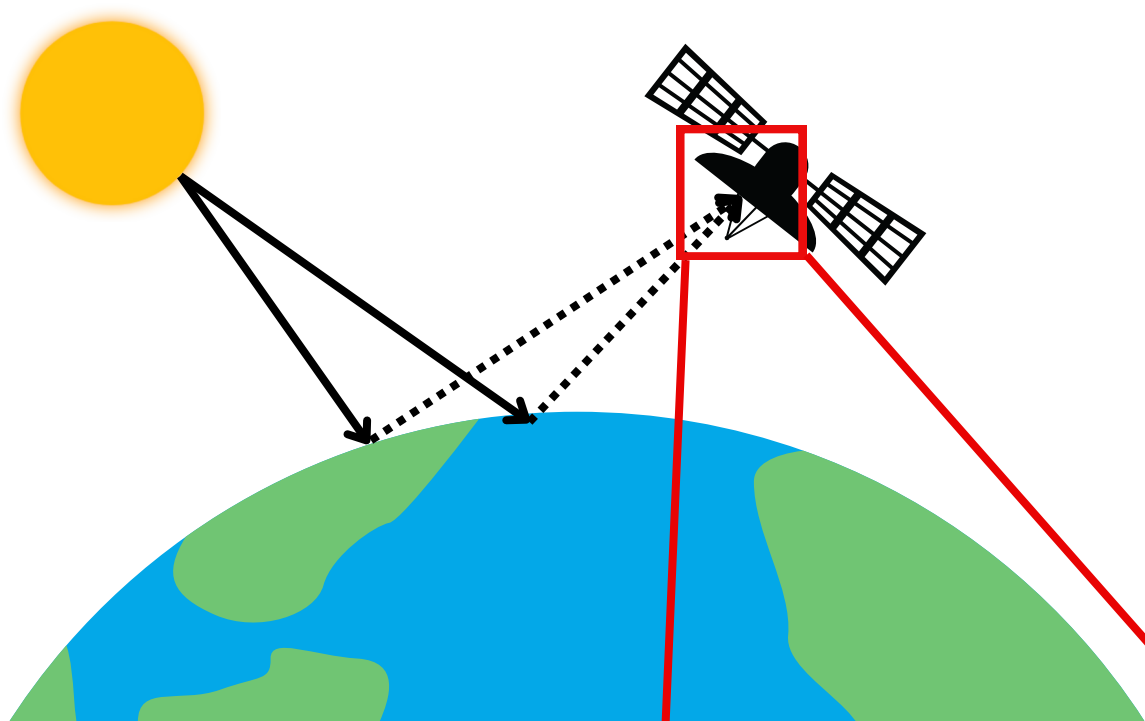
Binary  
classification

Prediction:



# Sentinel-2 Satellite Imagery

## Passive Imaging



13 Spectral Bands:

- Visible (RGB)
- Near-Infrared (NIR)
- Short-Wave Infrared (SWIR)

