

Electric Outage Duration Prediction - Final Model Report

1. Features Used

The following features were used to train the model:

1. Event Description (Encoded categorical feature)
2. Year (Numerical feature)
3. Respondent (Encoded categorical feature)

2. Model Parameters and Hyperparameters

The best-performing model is the Decision Tree Regressor. Below are its parameters and hyperparameters:

- Criterion: 'squared_error' (default)
- Splitter: 'best' (default)
- Maximum Depth: None (default, meaning nodes are expanded until all leaves are pure or contain fewer than the minimum samples)
- Minimum Samples Split: 2 (default, the minimum number of samples required to split an internal node)
- Minimum Samples Leaf: 1 (default, the minimum number of samples required to be at a leaf node)

3. Performance Metrics

The performance of the Decision Tree Regressor was evaluated using the Root Mean Squared Error (RMSE) metric on the test dataset. The results are as follows:

- Root Mean Squared Error (RMSE): 90.3