

## Best Model Metrics

### Extra Trees Regressor

#### Features / Importance

1. duration (0.106840)
2. instrumentalness (0.106628)
3. loudness (0.105952)
4. energy (0.104153)
5. acousticness (0.099422)
6. tempo (0.095905)
7. valence (0.095804)
8. speechiness (0.095739)
9. danceability (0.095383)
10. liveness (0.094174)

#### Hyperparameters

```
max_depth = 46  
n_estimator = 1458  
random_state = 42
```

#### Metrics

Average 5-Fold Cross Validated Mean Absolute Error: 15.936575985093796  
5-Fold Cross Validated Standard Deviation: 0.08829270949863222  
Test Prediction Mean Absolute Error: 15.30191608911115

(Mean absolute error of predicted song popularity score in range 1-100)