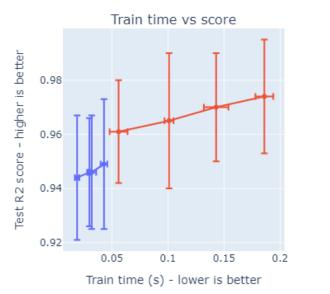
Noah Steaderman

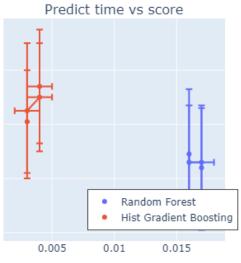
Problem 1:

Random Forest results:

```
n estimators criterion fold score
     gini 0 0.944444
10
10
     gini
          1 0.861111
10
     gini 2 0.944444
10
     gini 3 0.885714
10
     gini 4 0.714286
10 entropy 0 0.972222
10 entropy 1 0.888889
10 entropy 2 0.944444
10 entropy 3 0.942857
10
    entropy 4 0.685714
25
     gini 0 0.916667
25
     gini 1 0.972222
     gini 2 0.944444
25
25
     gini 3 1.000000
25
     gini 4 0.885714
25 entropy 0 0.916667
25 entropy 1 0.861111
25 entropy 2 0.944444
25 entropy 3 1.000000
    entropy 4 0.885714
25
50
     gini 0 0.888889
50
     gini 1 0.916667
     gini 2 0.944444
50
50
     gini 3 1.000000
50
     gini 4 0.914286
50 entropy 0 0.916667
50 entropy 1 0.888889
50 entropy 2 0.888889
50 entropy 3 1.000000
50 entropy 4 0.857143
```

Speed-score trade-off of tree-based ensembles





Predict time (s) - lower is better

Problem 2: