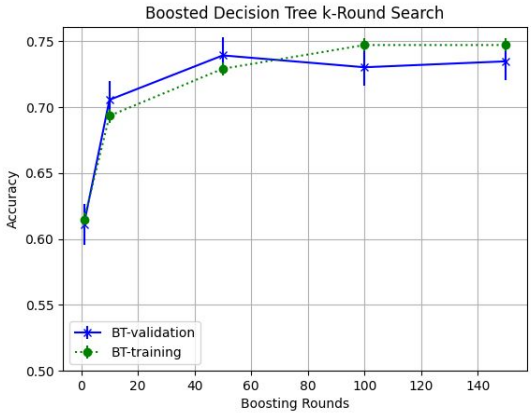
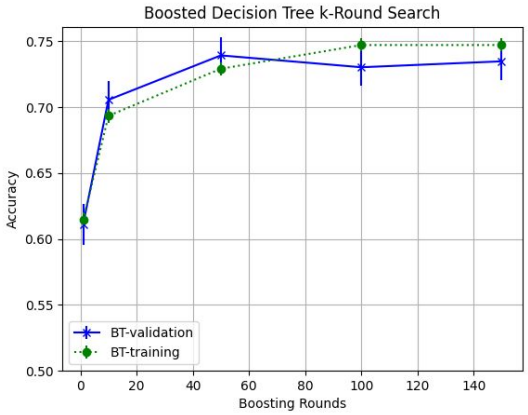
A short writeup using precise technical terms describe if the new features improve validation-set accuracy. No more than 4 charts and ~200 words. Make sure to include:
*** error bounds,**
*** hyperparameter tuning visualization,**
*** training vs validation accuracy (and some bias variance discussion),**
*** ROC with and without the features.**

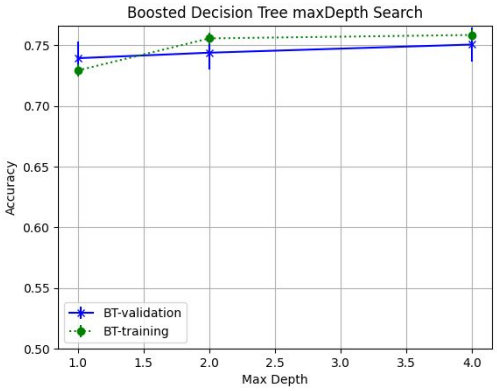
As per clarification on Ed board, I tested Sobel average features against Sobel average features + max features. I performed hyperparameter tuning along maxDepth and k-rounds of the boosted tree. I saw no performance difference between the two models.

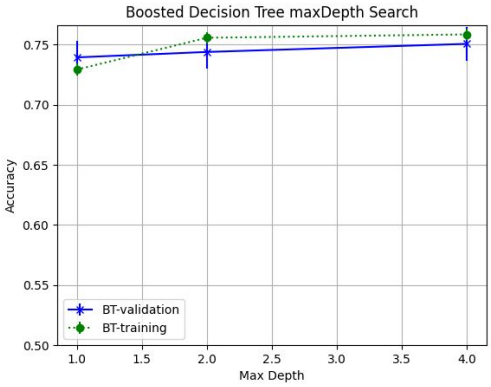




(left) Optimize K with only average features: maxDepth=1
boosted tree - k-rounds: 50 accuracy: 0.7253826660396712 - 0.7532690193535874

(right) Optimize K with average + max features: maxDepth=1
boosted tree - k-rounds: 50 accuracy: 0.7253826660396712 - 0.7532690193535874





(left) Optimize K with only average features: k=50

boosted tree - max-depth: 1 accuracy: 0.7253826660396712 - 0.7532690193535874

(right) Optimize K with average + max features: k=50
boosted tree - max-depth: 1 accuracy: 0.7253826660396712 - 0.7532690193535874

The ROC curves are also the same. It does not appear that the extra max feature helped with blink detection.