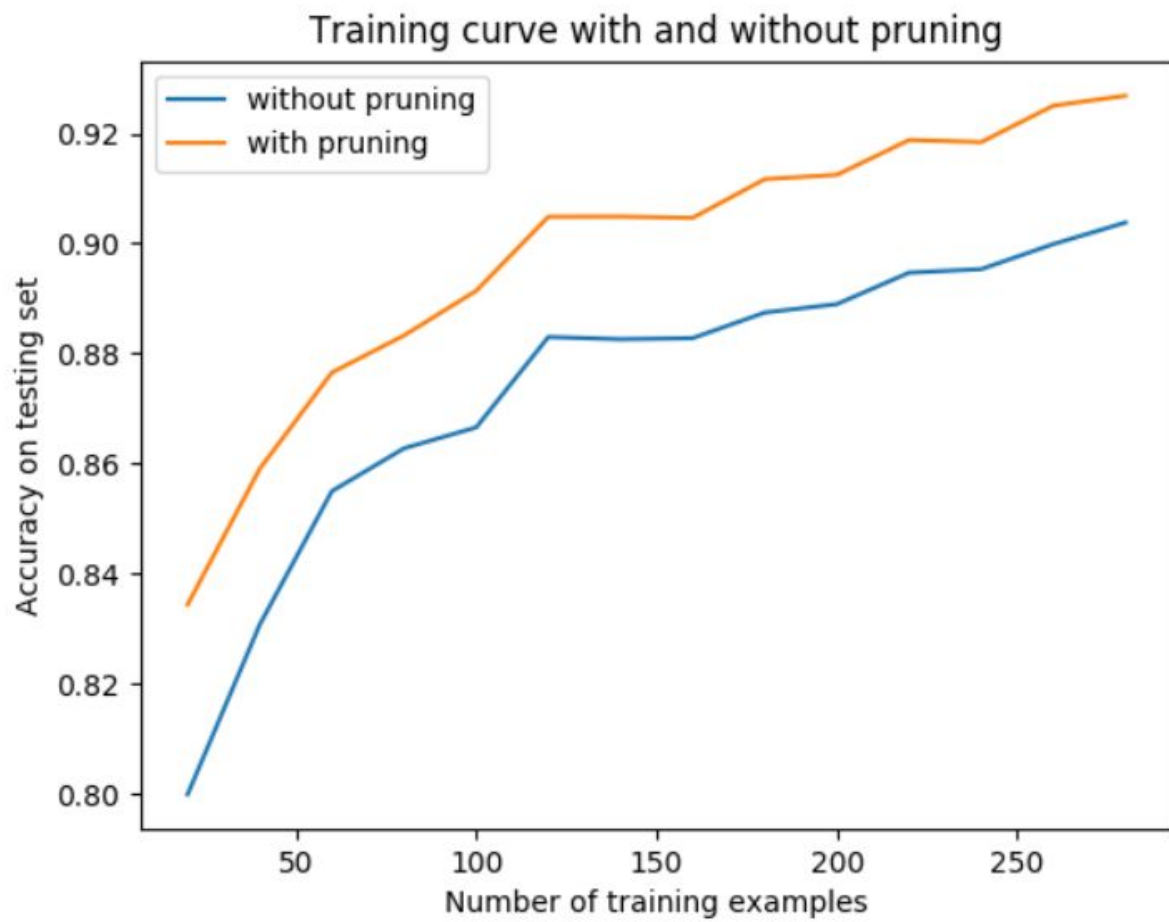Jeff Holm
jah586

1. Theodore Bisdikian is the only other student in my group.
2. Yes, we added the field modeResponse that holds the most common response for that node's attribute from the training data set.
3. We handled missing attributes by tracing the modeResponse field in each node down to bottom of the decision tree and returned the resulting classification.
4. Our prune function uses the Reduced Error Pruning Implementation. It first calculates the accuracy of the tree on the testing data set. Then it makes the current node a leaf by removing the references to its children and calculates the resulting accuracy of the tree. If the accuracy decreased, the children are restored, otherwise the tree has been successfully pruned. This is done for each node in the tree starting at the bottom and working upwards until the root.
5.
   a. Accuracy increases as training set size increases, which makes sense because more data gives more accurate results.
   b. The advantage of pruning seems to remain constant as the data set size increases. This does not make sense because as the training data set increases there is more overfitting so we would expect the difference in accuracy between

the with-pruning data and without-pruning data to increase as the data set

Training curve with and without pruning

increases.