

# Summary of Project 3

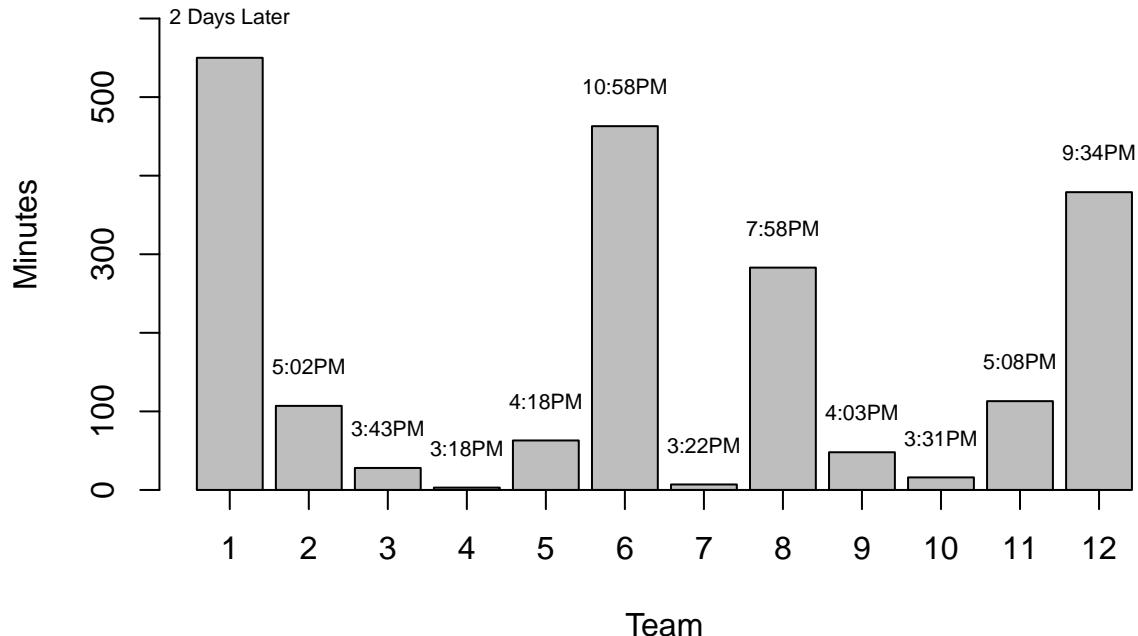
*Chengliang Tang*

*Nov 29, 2016*

Feature extraction, storage, running time (cost)

Submission Time

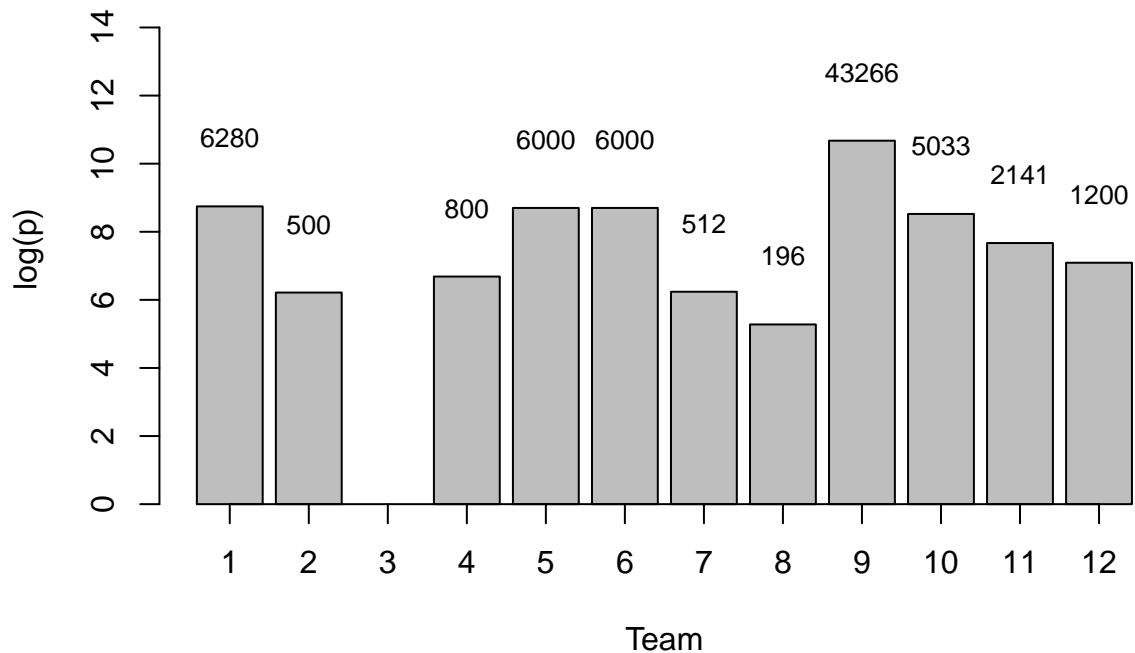
## Submission Time: Minutes from 3:15PM



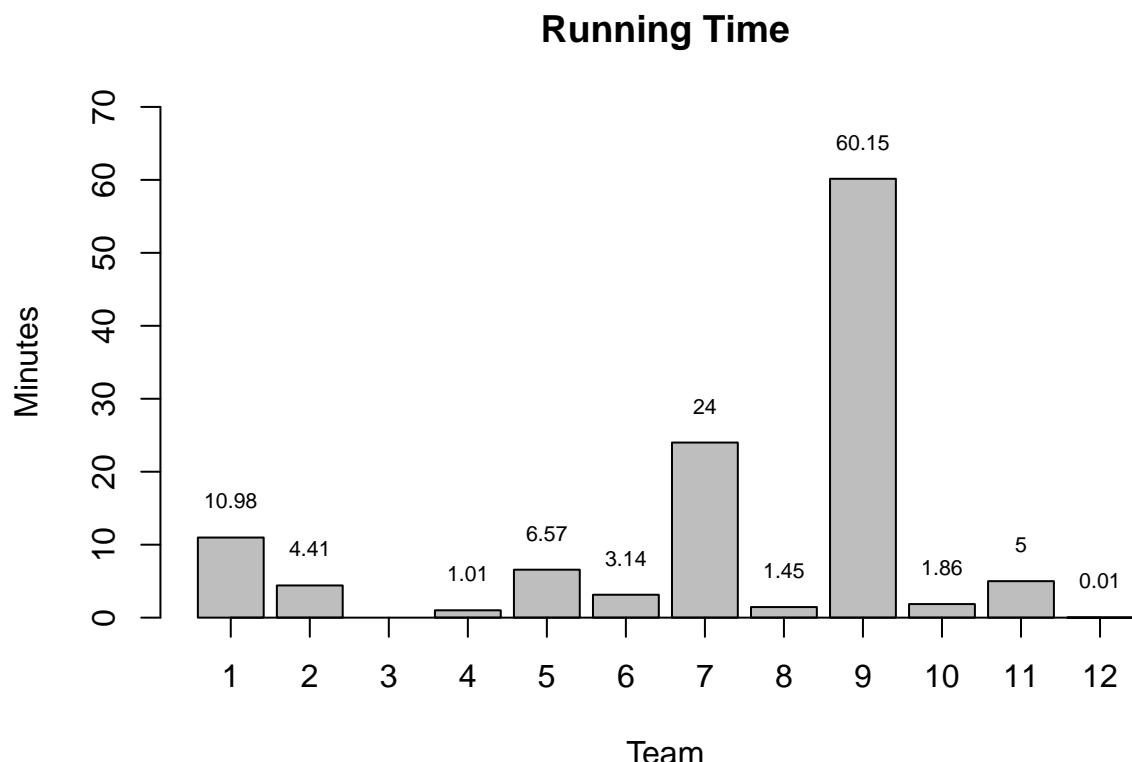
Dimensions of Extracted Features

Advanced Model

## Extracted Advanced Feature Dimensions

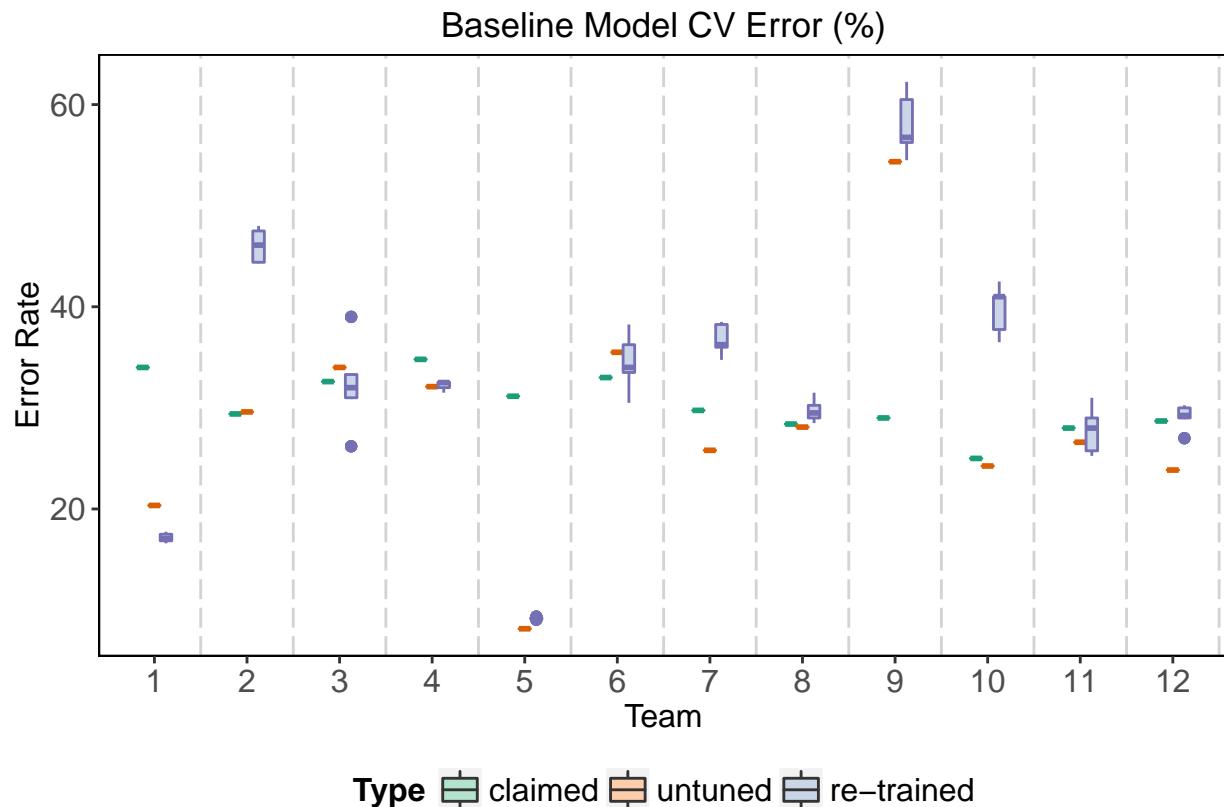


## Running Time



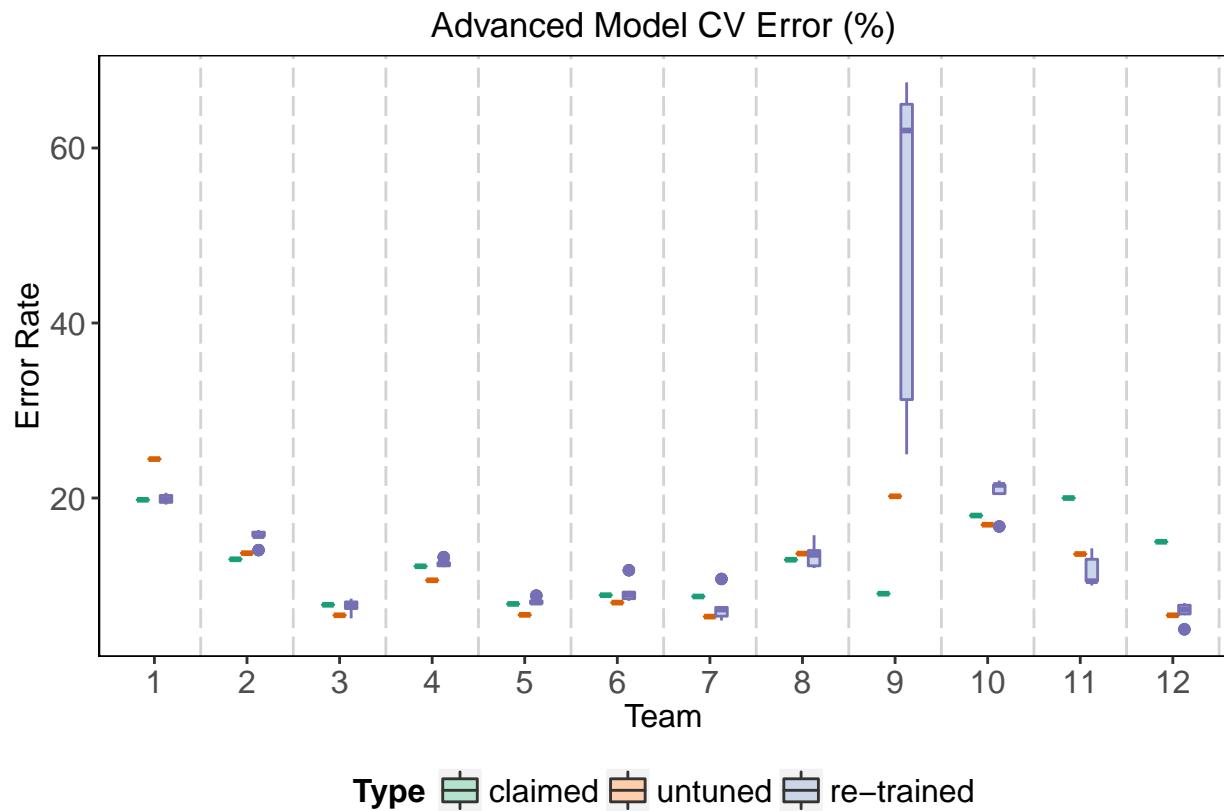
## Performance

### Baseline Prediction Accuracy



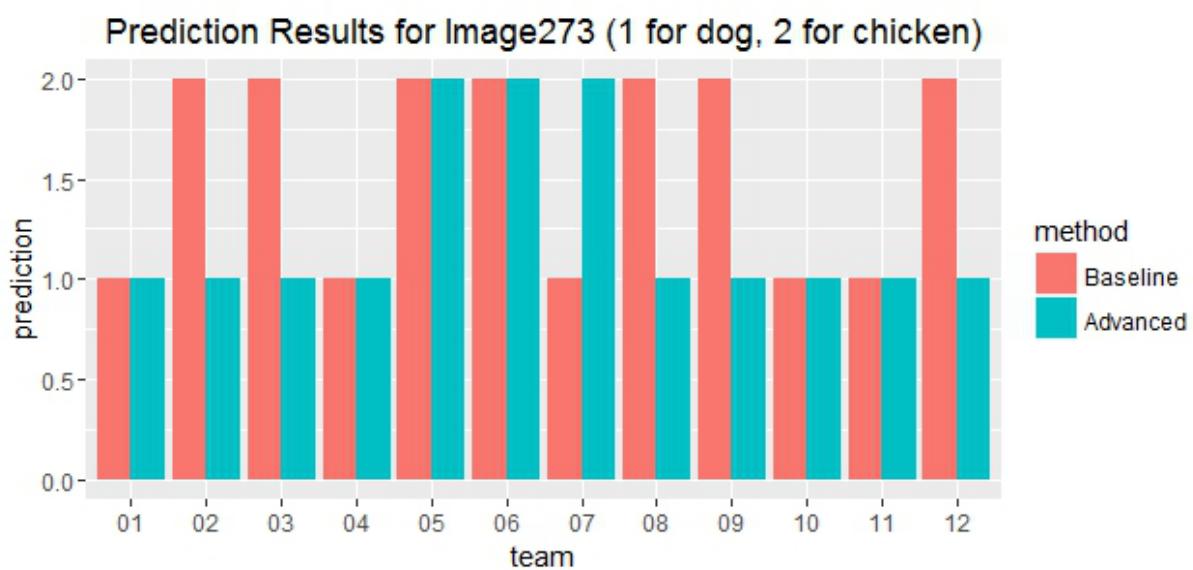
### Advanced Prediction Accuracy

Advanced models: SVM(1, 2, 4, 9), CNN(3), xgboost(5), gbm(6, 11), majority vote(7, 10), random forest(8), logistic(12)



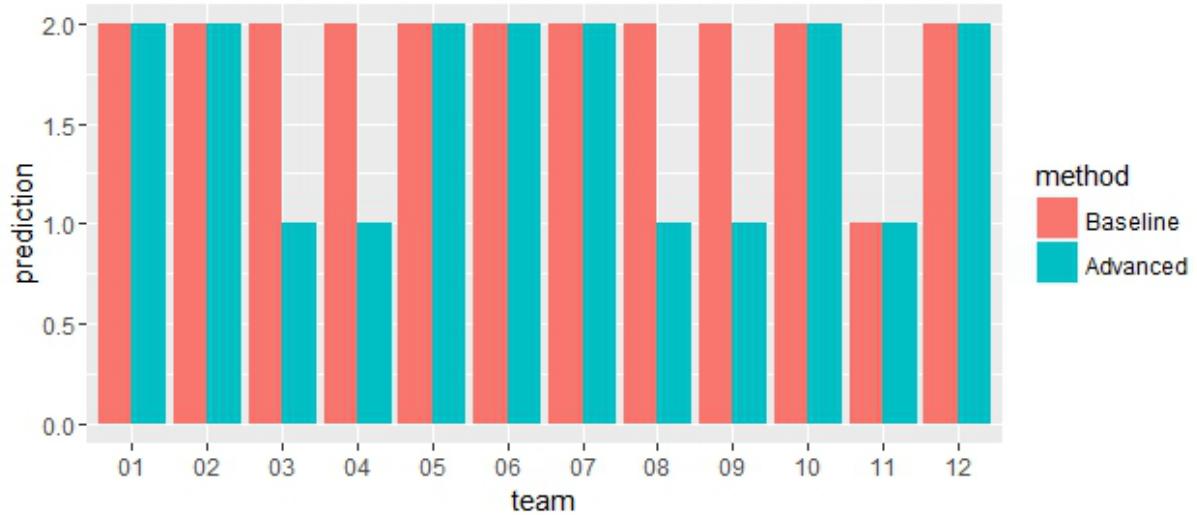
## Fun Images

The prediction of 20 fun images.



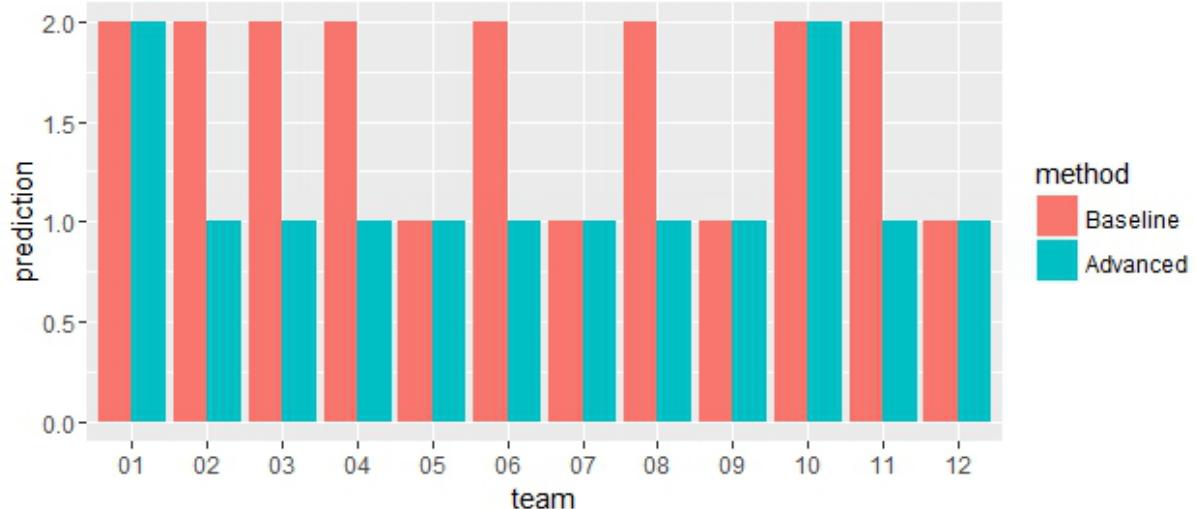


Prediction Results for Image274 (1 for dog, 2 for chicken)



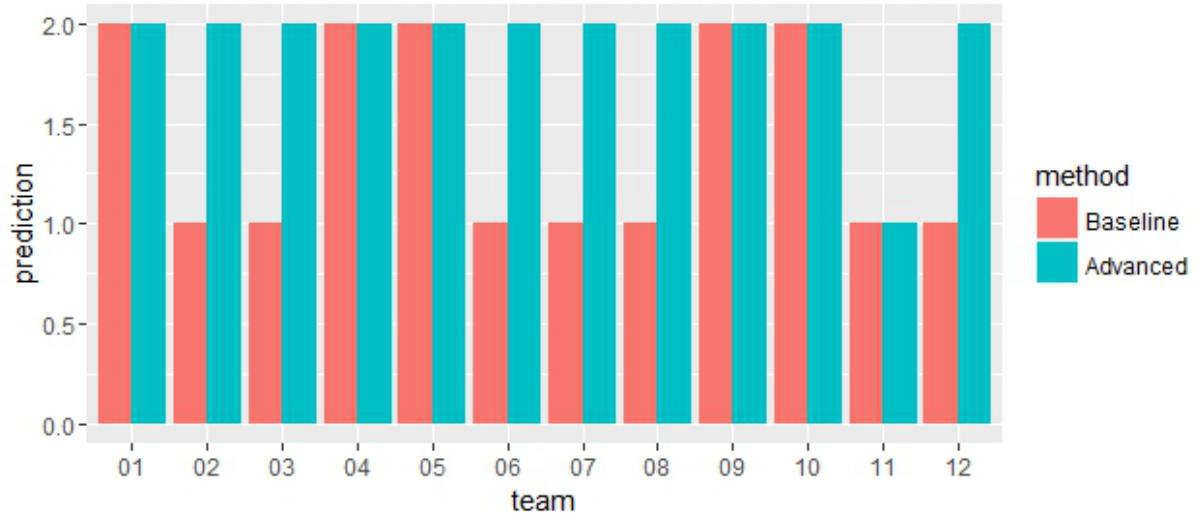


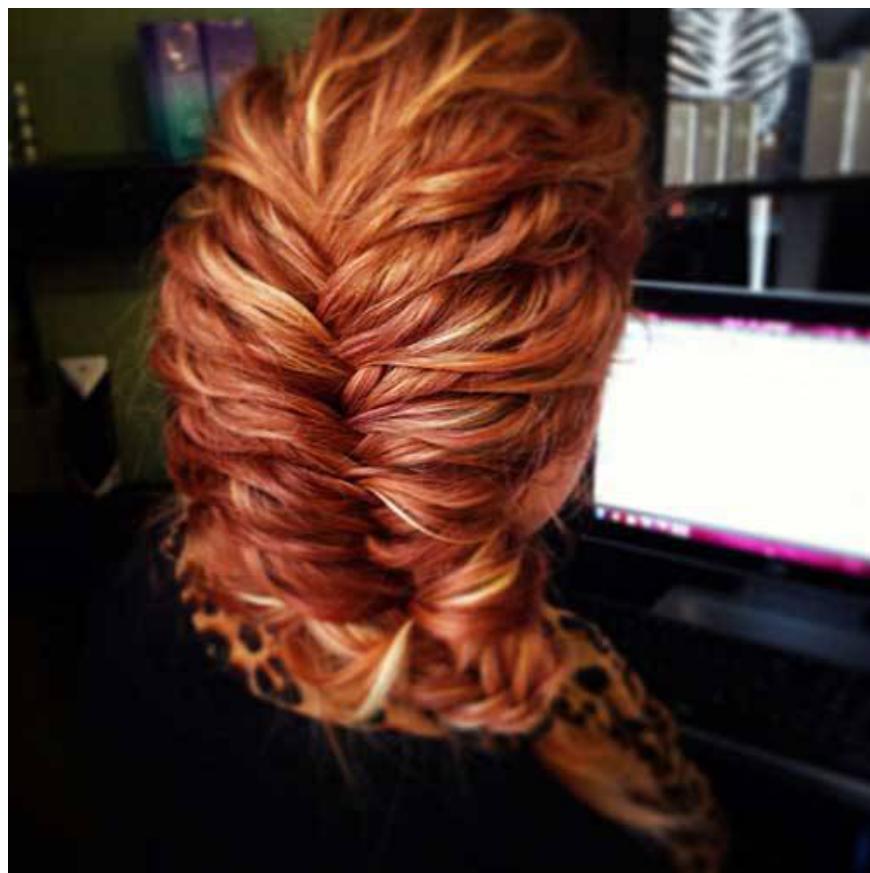
Prediction Results for Image328 (1 for dog, 2 for chicken)



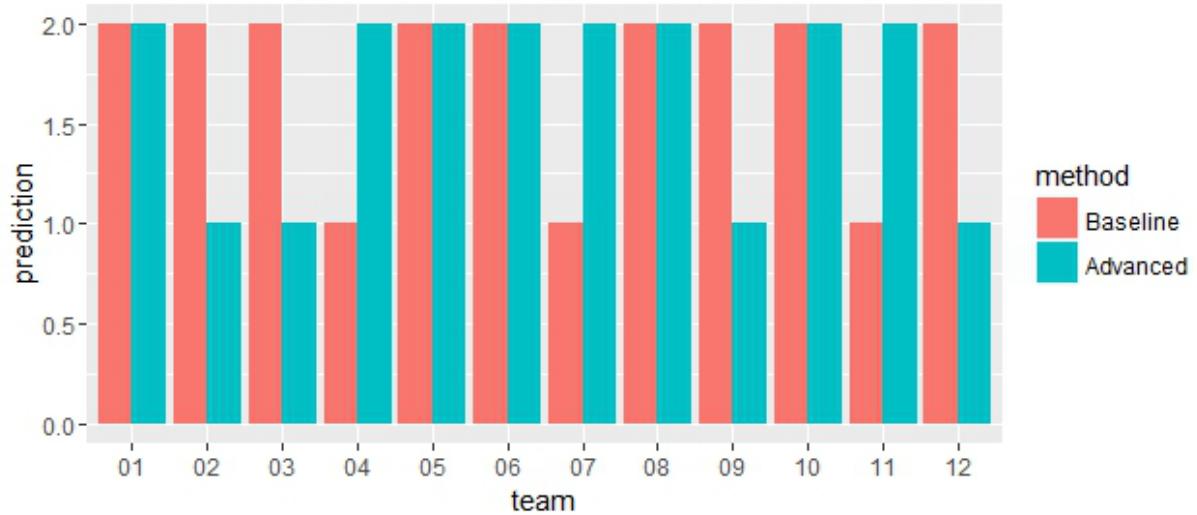


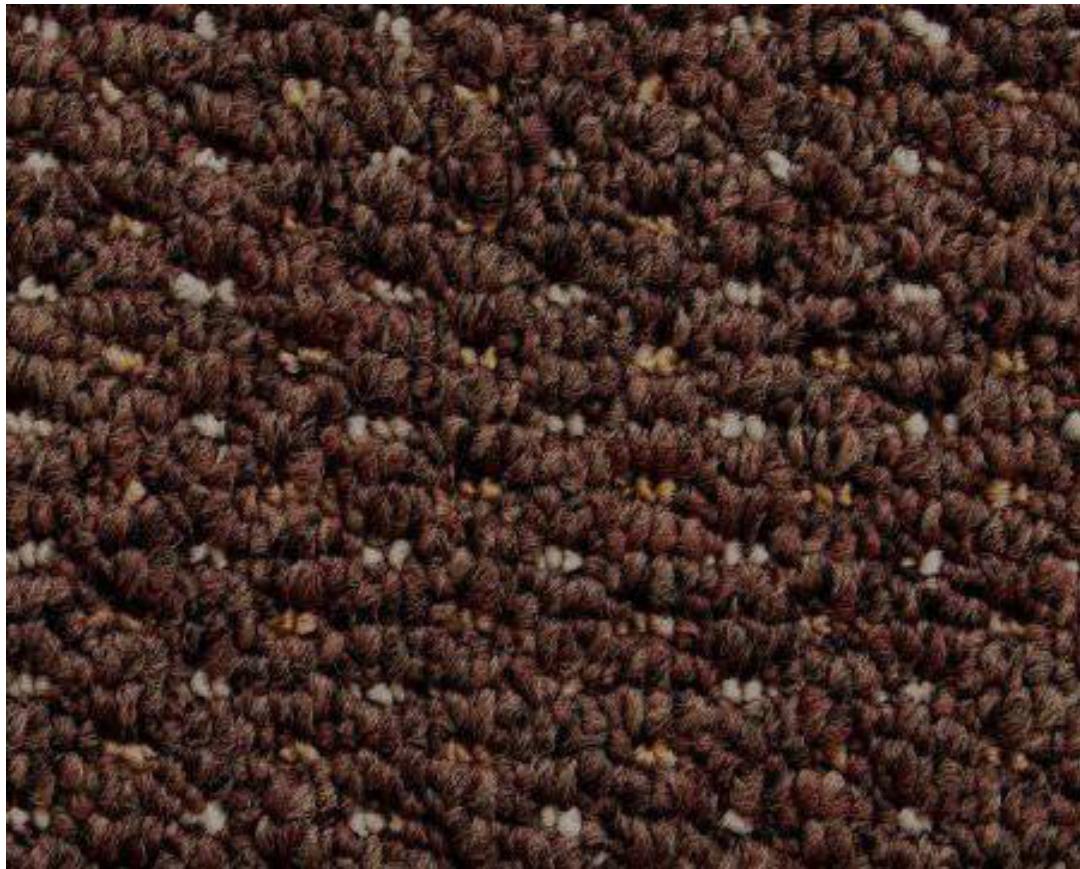
Prediction Results for Image492 (1 for dog, 2 for chicken)



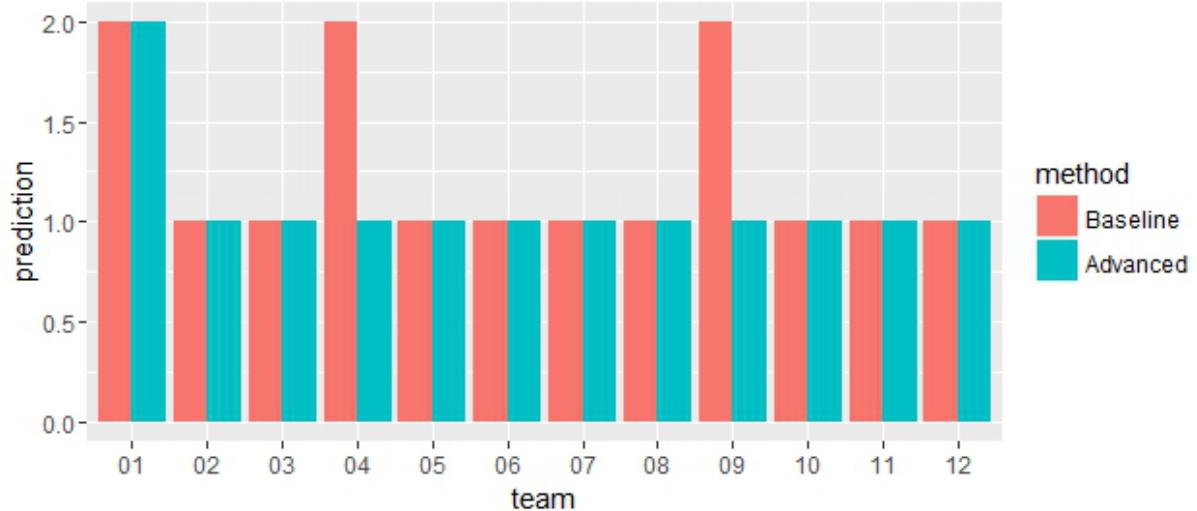


Prediction Results for Image532 (1 for dog, 2 for chicken)



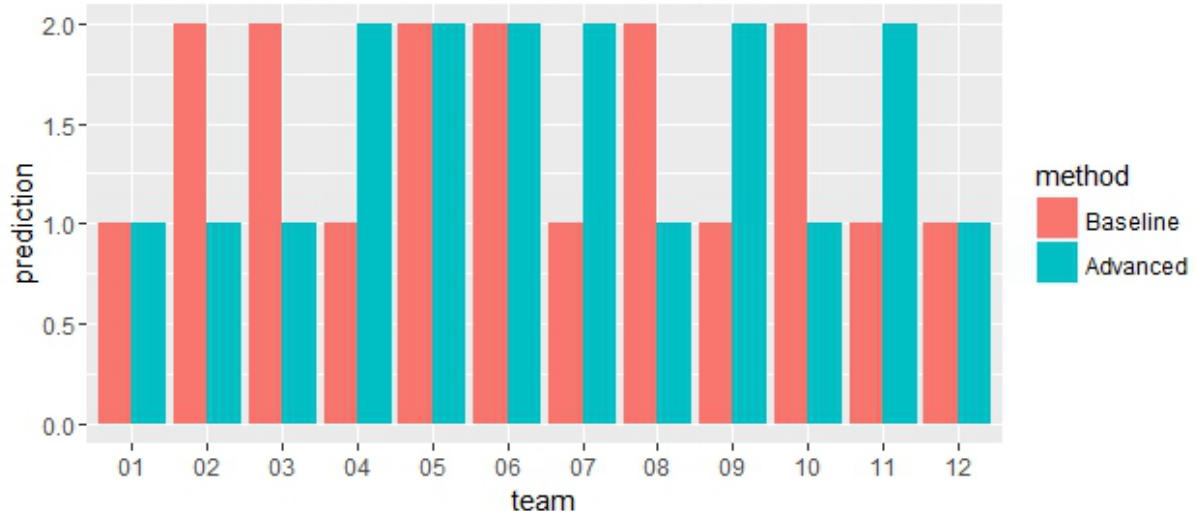


Prediction Results for Image576 (1 for dog, 2 for chicken)



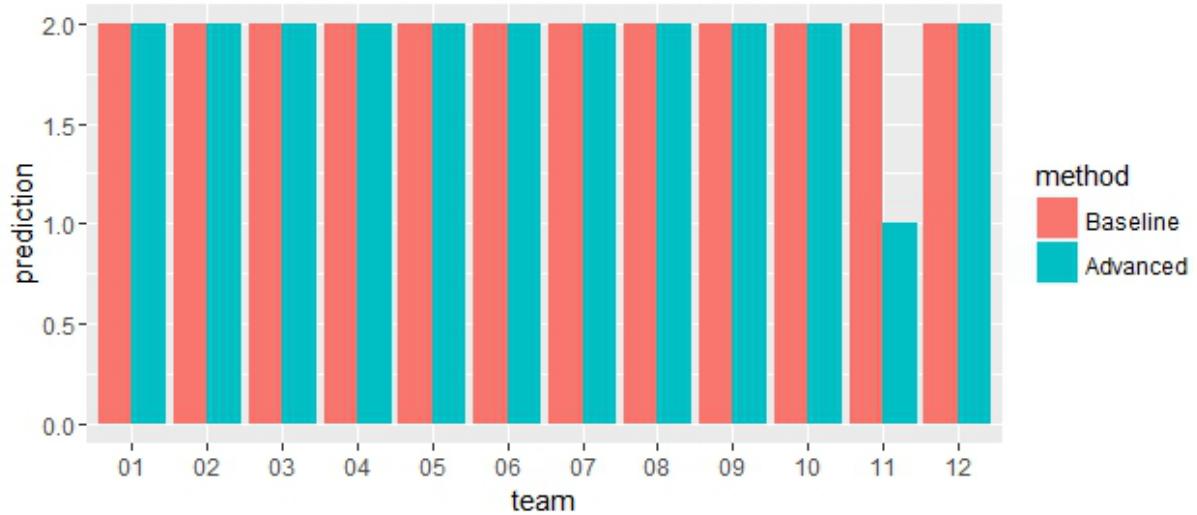


Prediction Results for Image599 (1 for dog, 2 for chicken)





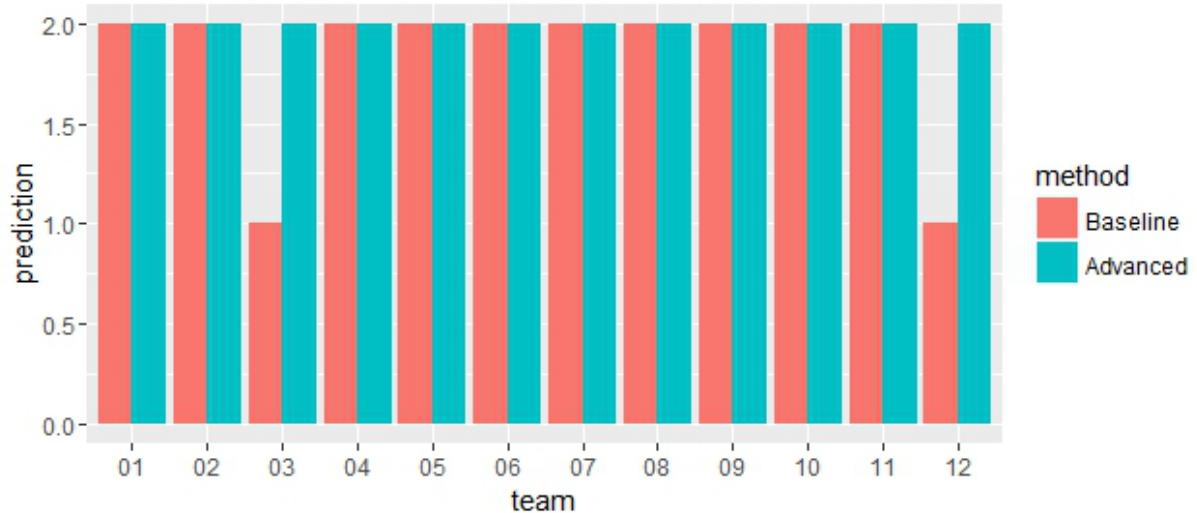
Prediction Results for Image609 (1 for dog, 2 for chicken)





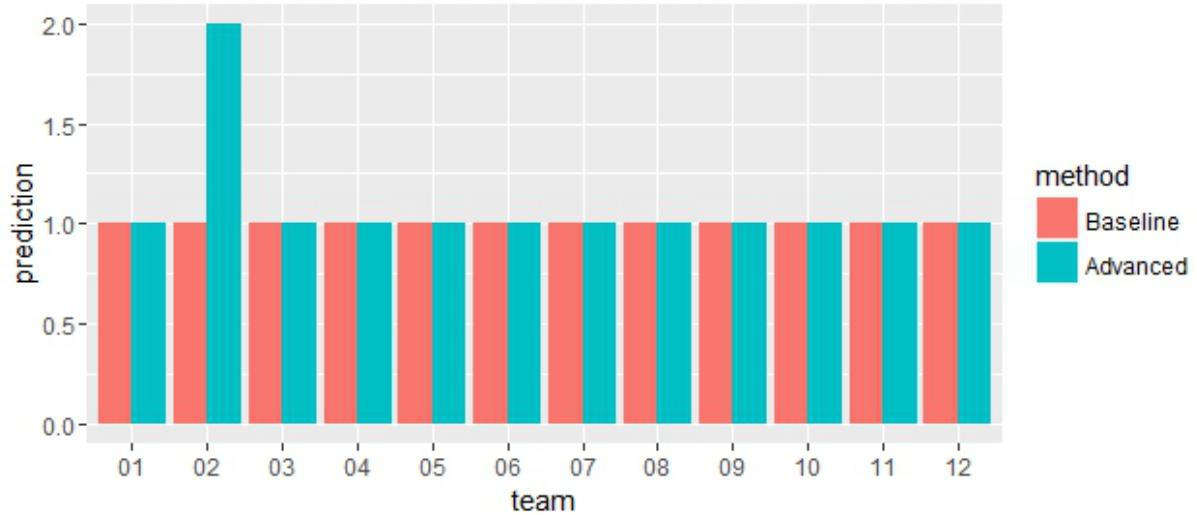
foodCRAVINGS

Prediction Results for Image834 (1 for dog, 2 for chicken)



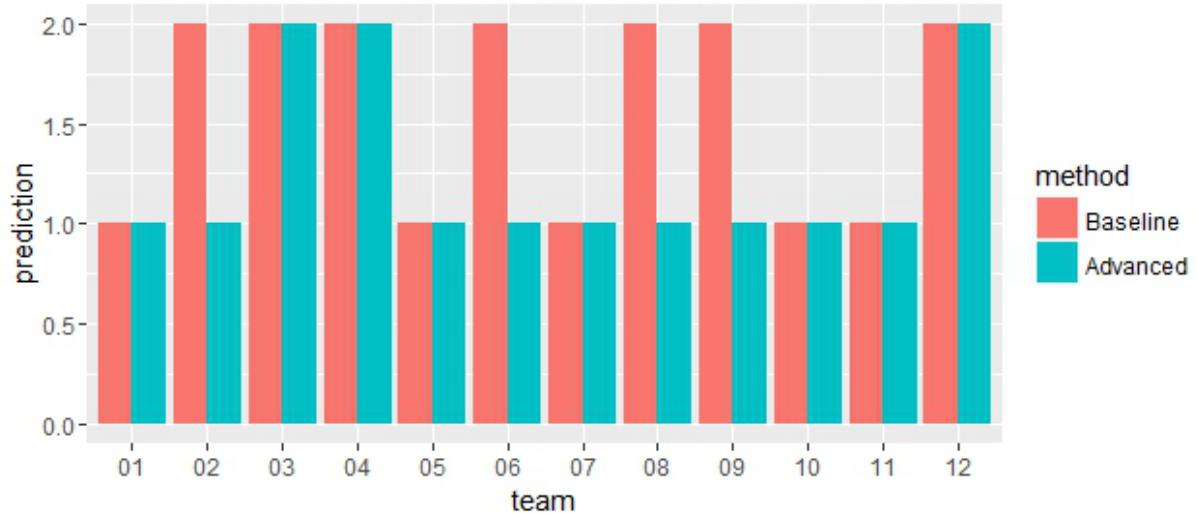


Prediction Results for Image839 (1 for dog, 2 for chicken)



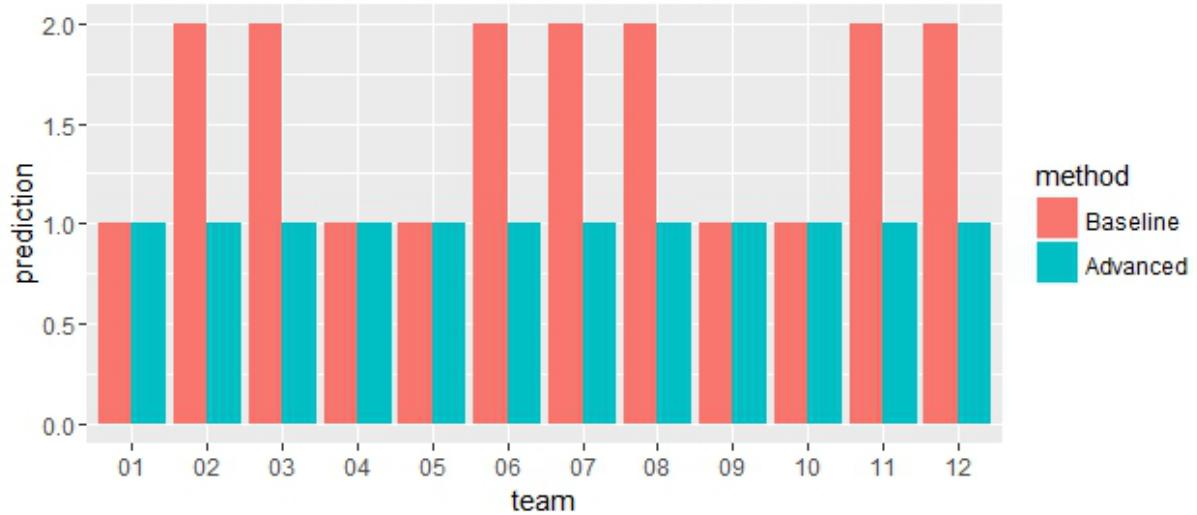


Prediction Results for Image862 (1 for dog, 2 for chicken)



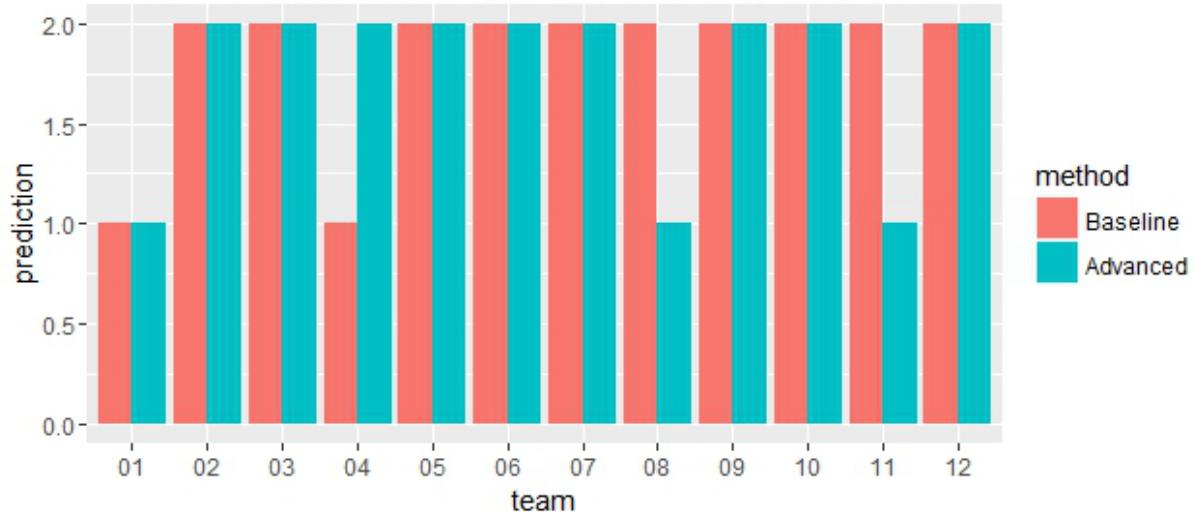


Prediction Results for Image974 (1 for dog, 2 for chicken)

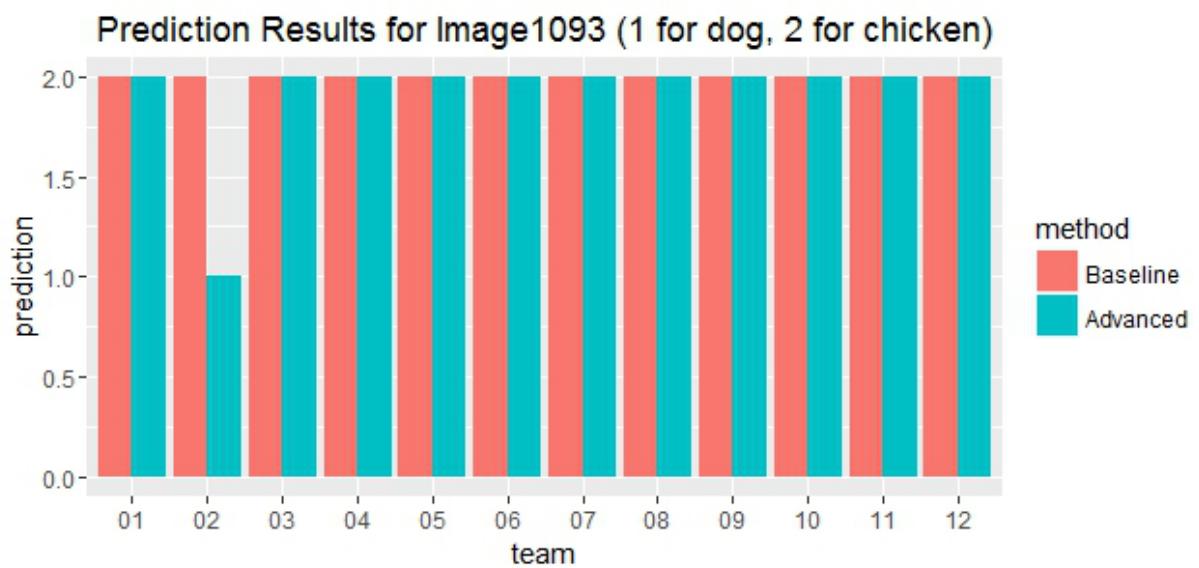


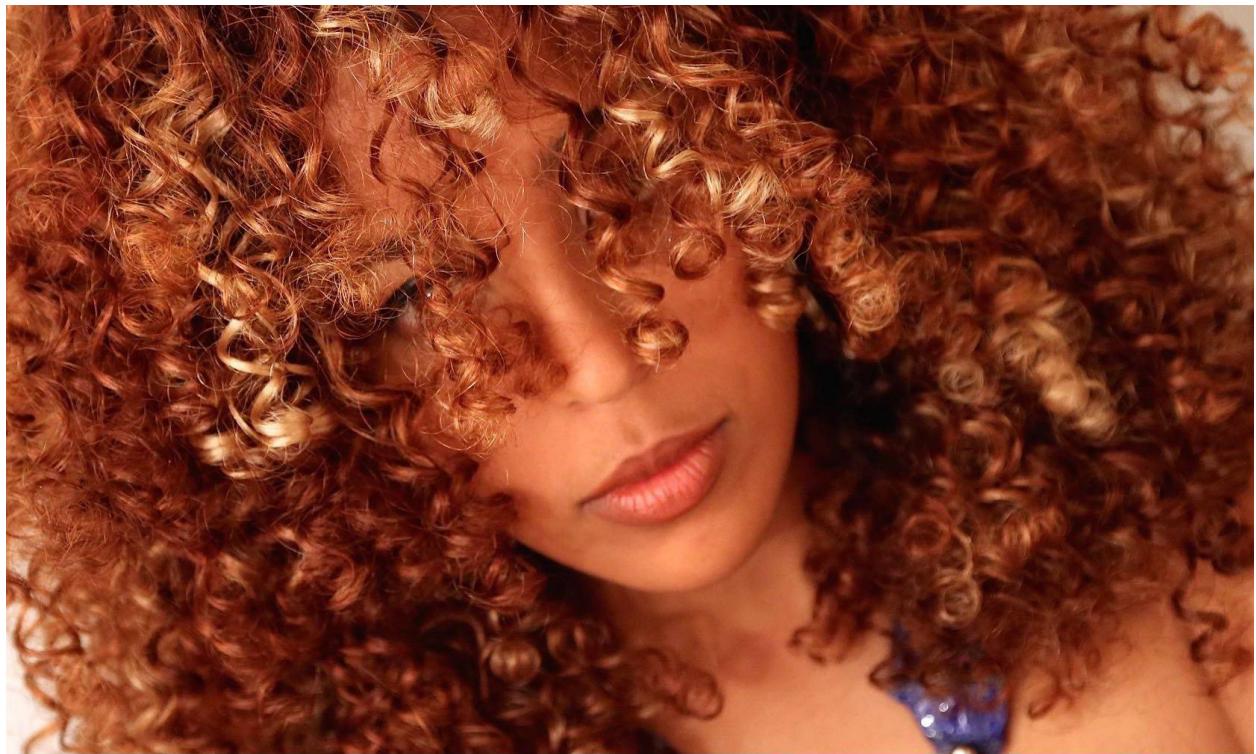


Prediction Results for Image1089 (1 for dog, 2 for chicken)

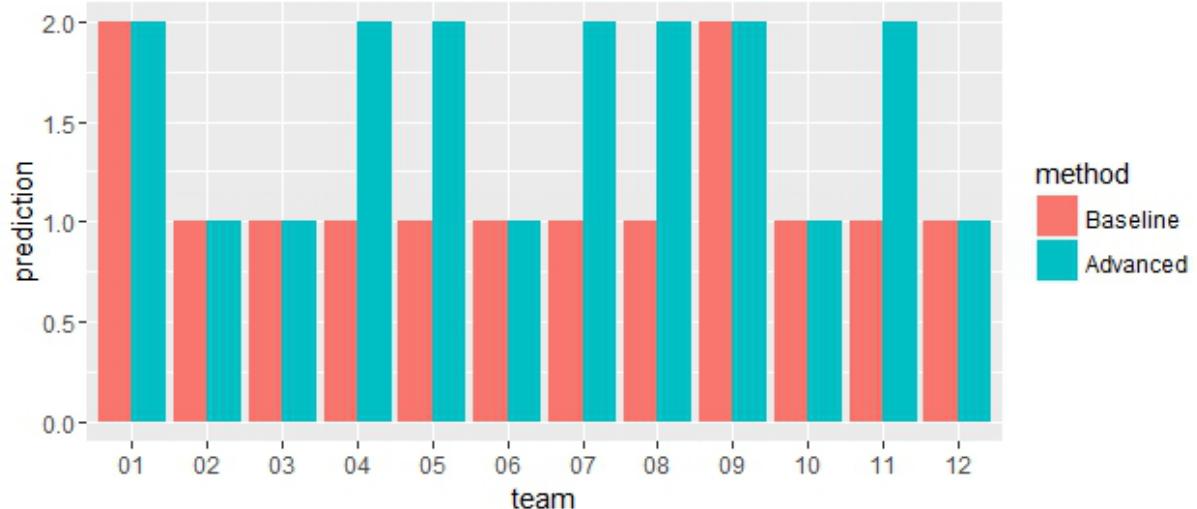


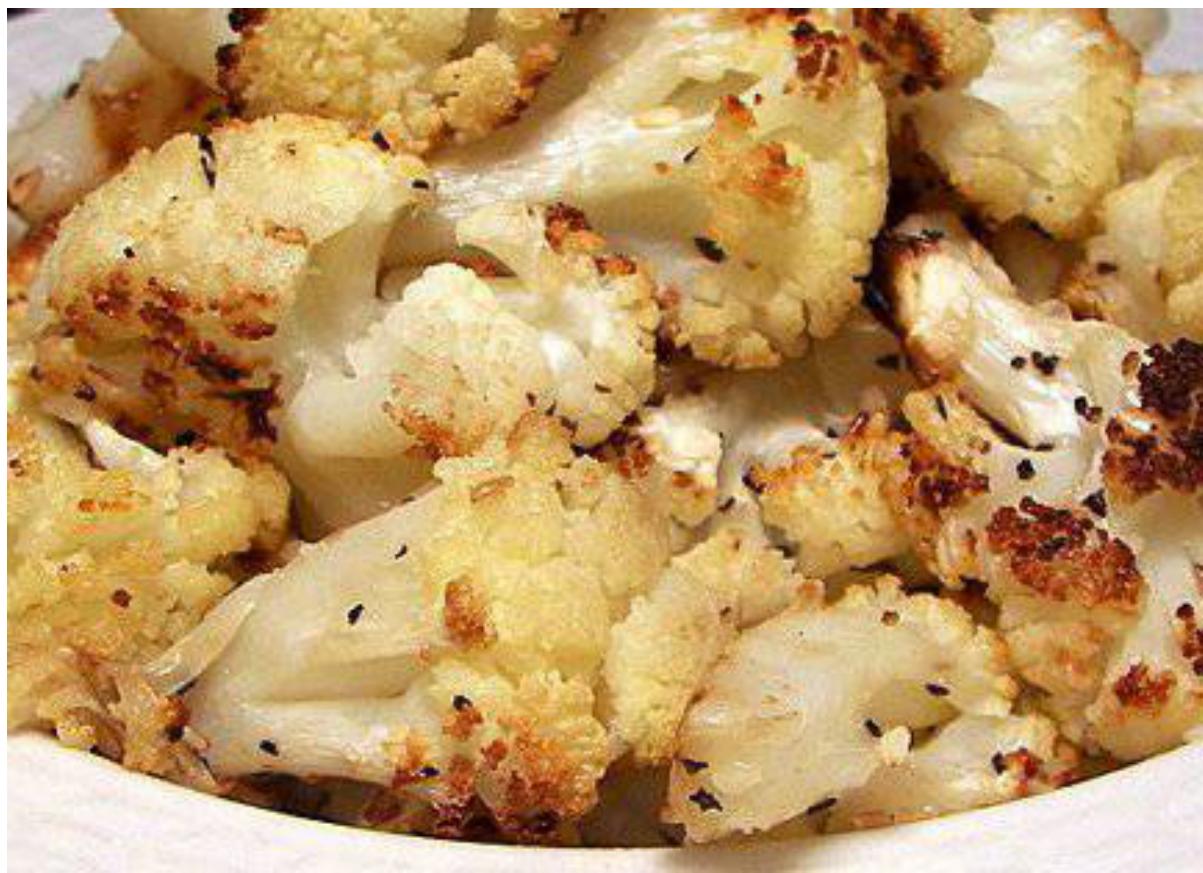


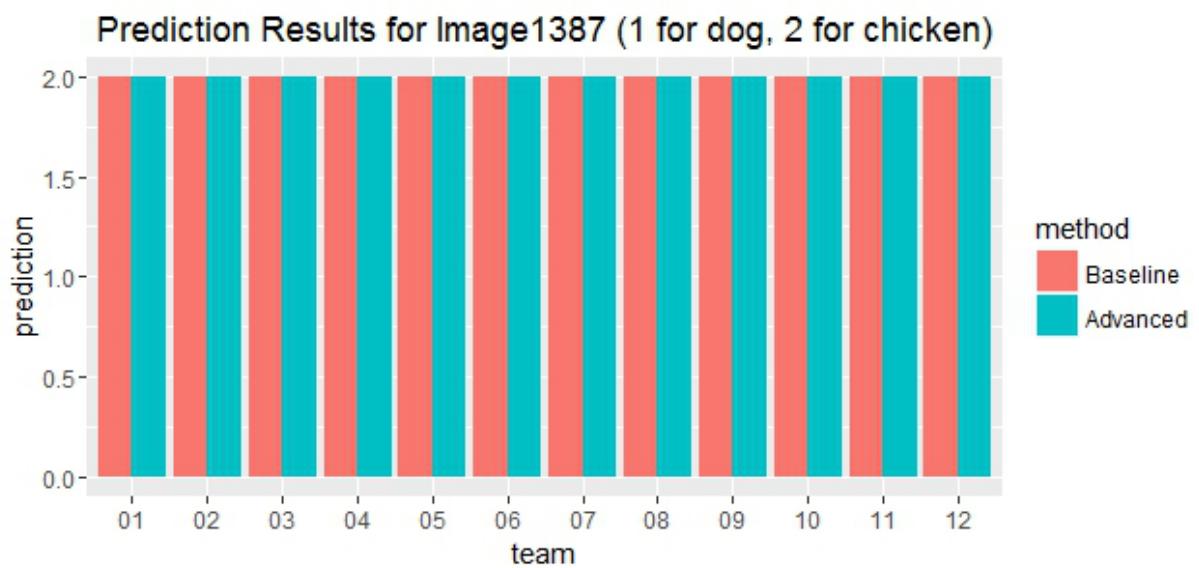




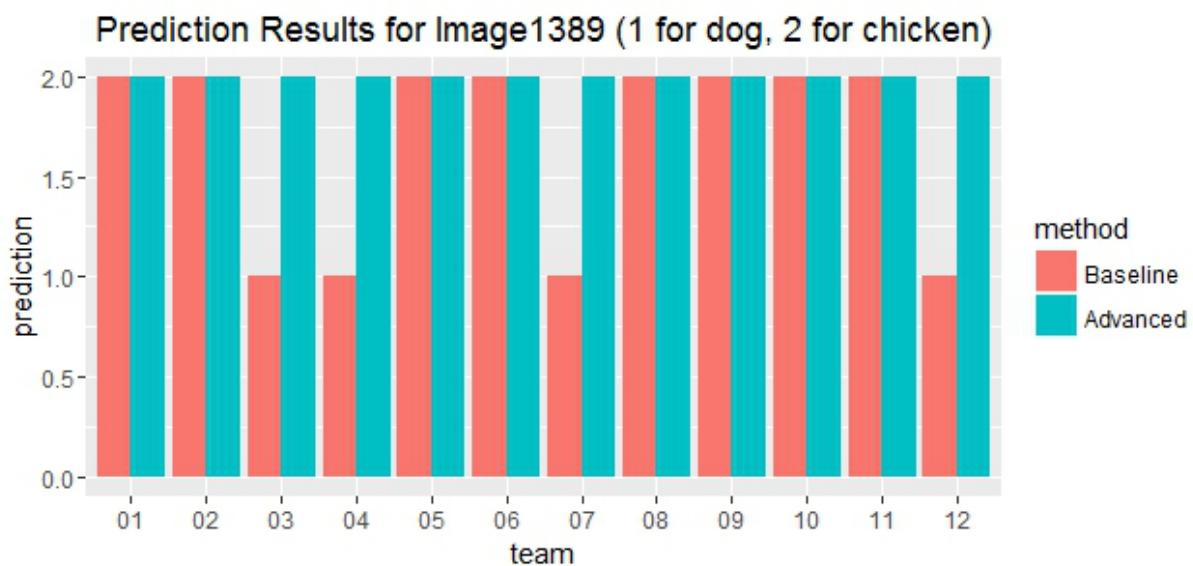
Prediction Results for Image1268 (1 for dog, 2 for chicken)



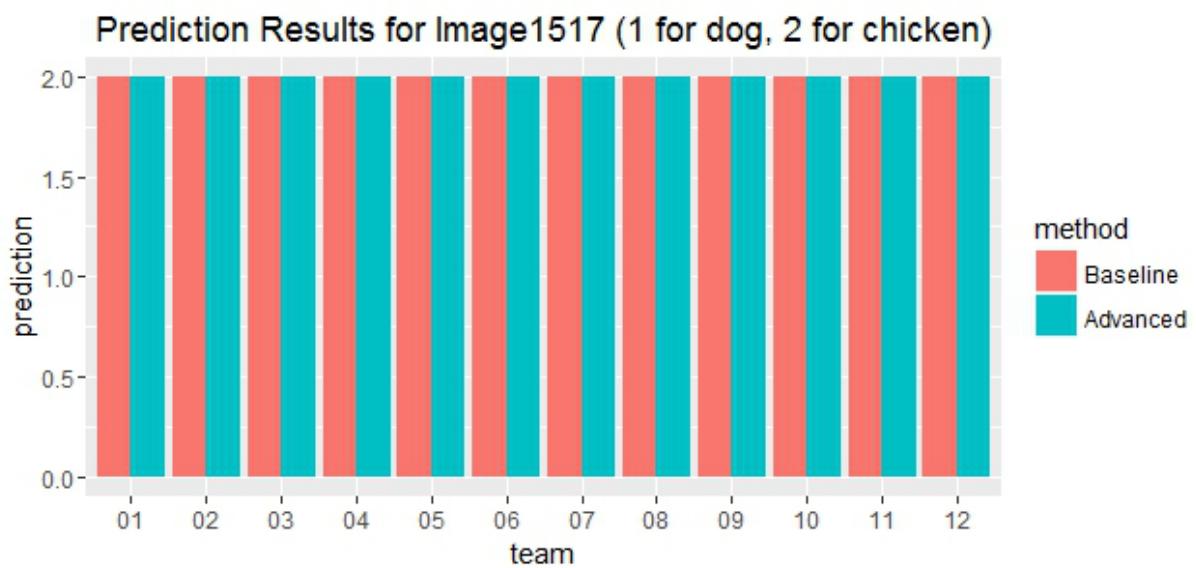




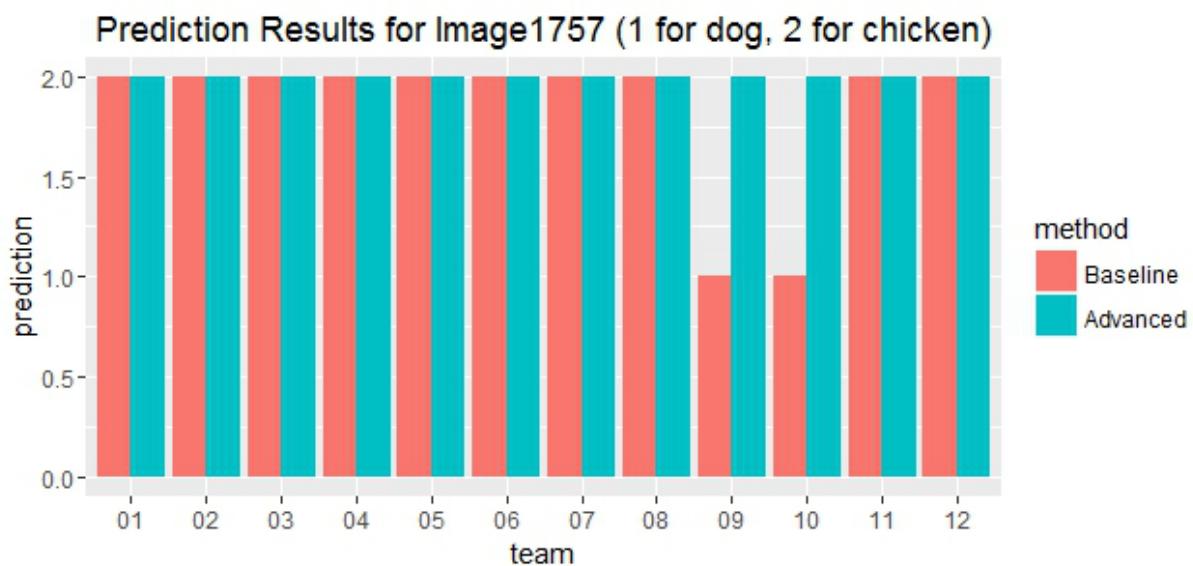






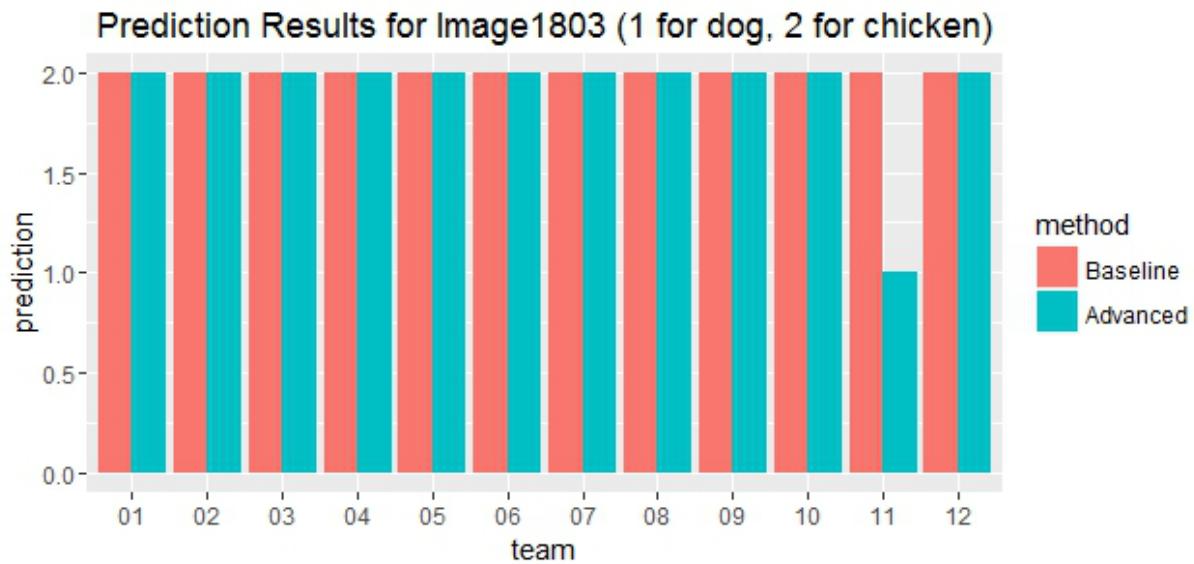






The Gunny Sack





## Summary of Common Problems

- Ease of Reproducibility(train.R & test.R): Input and Output
- Absolute path: `setwd("F:/UNI/ADS_2016/project3/output")` Relative path: `setwd("~/output")`