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Predicting the Outcomes of Batted Balls in Major League Baseball

Seth Karpel

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With the goal of building a predictor that can correctly determine whether or not a ball batted into play will result in a hit or an out, three classifiers are implemented—random forest (RF), support vector machine (SVM) and neural network (NN). The three individual classifiers are then aggregated into a final prediction, each equally weighted in a “voted” vector (requires agreement amongst at least two of the three classifiers to declare either “hit” or “out”). Three seasons, 2015, 2016, and 2017, were considered in building the predictor. The 2015 season, the first in which the MLB began tracking featured metrics such as “exit velocity,” served as the training set for the predictor, which eventually attempts to classify events from a pooled set of the remaining years.