ECE 356 Lab4 Report

1. Analysis and results

Feature Extraction

First, we start with the basic features from the Batting and Pitching tables. From Batting table, we selected all the features, including Games, At Bats, Runs, Hits, Doubles, Triples, Homeruns, Runs Batted In, Stolen Bases, Caught Stealing, Base on Balls, Strikeouts, Intentional walks, Hit by pitch, Sacrifice hits, Sacrifice flies, Grounded into double plays. From Pitching table, we selected all the features, including Wins, Losses, Games, Games Started, Complete Games, Shutouts, Saves, Outs Pitched, Hits, Earned Runs, Homeruns, Walks, Strikeouts, Opponent's Batting Average, Earned Run Average, Intentional Walks, Wild Pitches, Batters Hit By Pitch, Balks, Batters faced by Pitcher, Games Finished, Runs Allowed, Sacrifices by opposing batters, Sacrifice flies by opposing batters, Grounded into double plays by opposing batter.

Feature Selection

Gini Measure

Results

Decision Tree

Entropy Measure

Results

Decision Tree

Decision Trees

1. Comparison