Hedge Strategy

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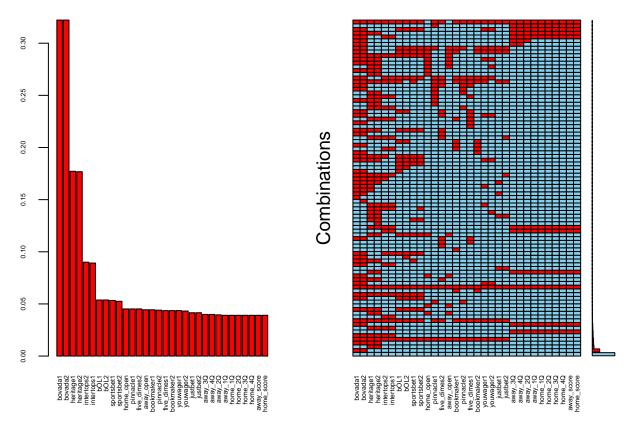
10/13/2020

Data

Missing Data

Bovada seems to be missing the most data. I will leverage Pinnacle due the legitimacy of the book, coupled with the relatively low levels of missing data.

Some scores are missing. After doing some research on a few of these instances, it looks like sportsbookreview is missing these scores even though the game took place. This can be expected to some degree since I didn't pay for the data. I will factor these out of the analysis



##
Variables sorted by number of missings:
Variable Count

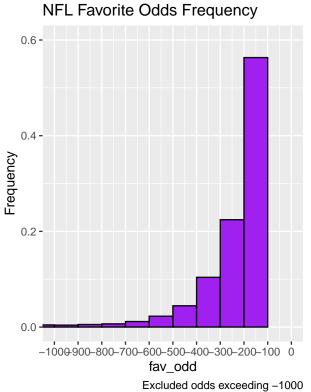
```
bovada1 0.32219959
##
##
        bovada2 0.32219959
##
      heritage1 0.17718941
      heritage2 0.17678208
##
##
     intertops2 0.09002037
     intertops1 0.08920570
##
##
           bOL1 0.05376782
           bOL2 0.05376782
##
##
     sportsbet1 0.05336049
     sportsbet2 0.05254582
##
##
      home_open 0.04521385
      pinnacle1 0.04521385
##
    five_dimes2 0.04521385
##
      away_open 0.04439919
##
##
     bookmaker1 0.04439919
##
      pinnacle2 0.04399185
##
    five_dimes1 0.04358452
     bookmaker2 0.04358452
##
##
      youwager1 0.04358452
      youwager2 0.04317719
##
##
       justbet1 0.04154786
##
       justbet2 0.04154786
##
        away_3Q 0.03991853
##
        away_4Q 0.03991853
        away_2Q 0.03951120
##
##
        away_1Q 0.03910387
##
        home_1Q 0.03910387
##
        home_2Q 0.03910387
##
        home_3Q 0.03910387
##
        home_4Q 0.03910387
##
     away_score 0.03910387
##
     home_score 0.03910387
```

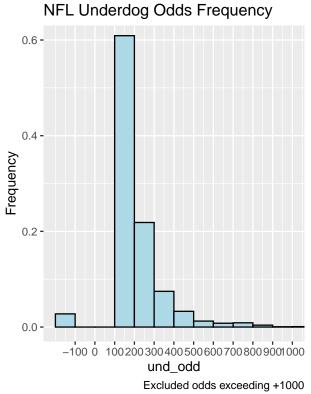
Tidy

EDA

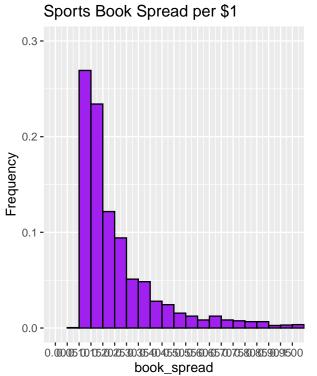
Odds

Exploring the frequency each odd occurs, as this will give me a better feel on how often I can execute strategies that might target specific odd thresholds. -200:200 is the most frequent odds, which is what I would expect.





Explore spread



house difference on betting on both the underdog and favorite

