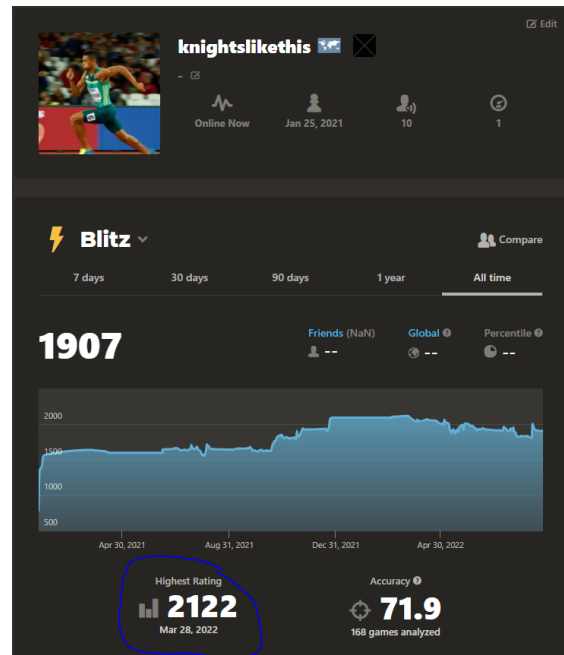


Exploratory Data Analysis of User Knightslikethis's Games in March 2022

Introduction:

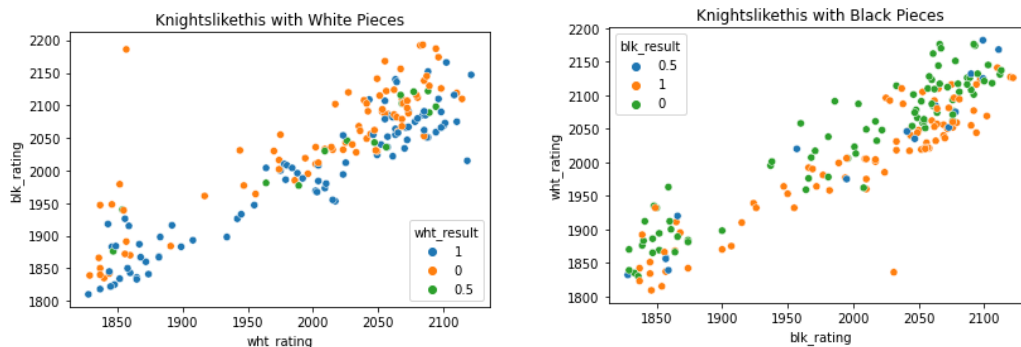
On March 28, 2022, I had my highest rating with 2122 elo on Chess.com. As a result, I wanted to examine my games from this entire month. By web scraping the data utilizing the Chess.com API, I was able to place the data from my games into easily readable graphs. Using these graphs, I would be able to analyze graphical representations of the game data.



Results:

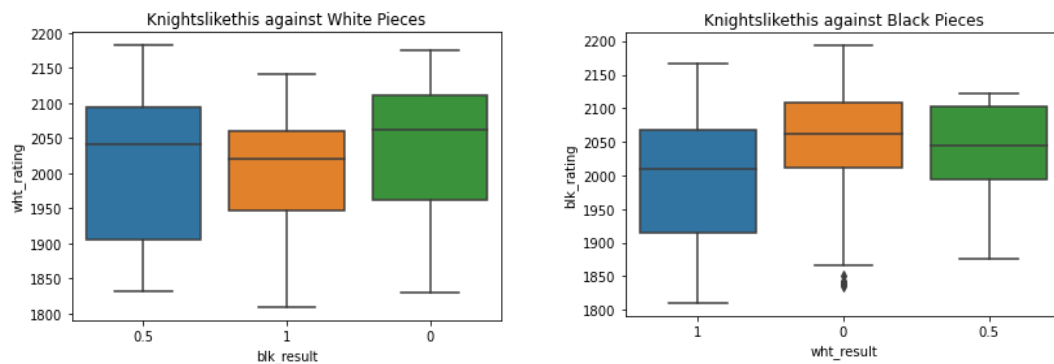
Graph Key: 1 = Game Won, 0.5 = Game Drawn, 0 = Game Lost

- Scatter Plots



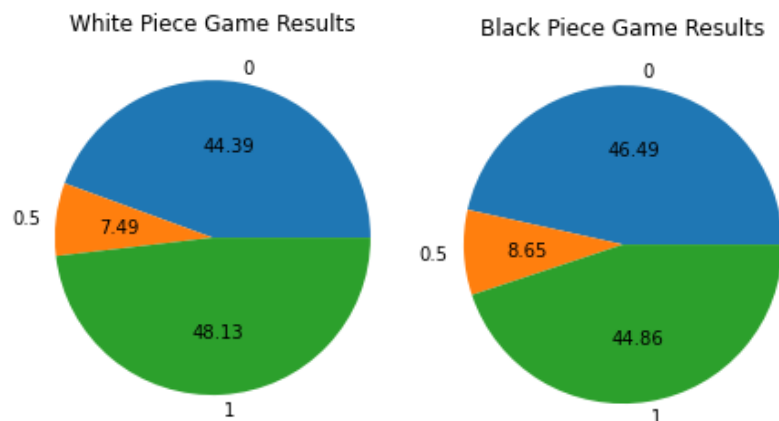
Both scatter plots show more losses when the opponent has a higher rating which makes logical sense. Both scatter plots also show more wins when the opponent has a lower rating. The plots both show similar trends, however when I had the Black pieces I had wins against on average lower rated opponents. This must be because the player with the white pieces has the initiative as the start first. Logically this makes sense because white is said to have a half-move advantage or +0.3 as shown by engines.

- Box Plots



The boxplot shows that I had a greater variance of ratings I drew against as the player against the white pieces. As the player on the back foot, with the black pieces I was more willing to take a draw against my opponent with white. Also against the white pieces, I was more likely to lose to lower rated players as shown by the higher range of the plot. Against the Black pieces, I only lost to more higher rated players. Most of these games are all blitz games, showing that if I was given the white pieces with the initiative I was more likely to do well.

- Pie Charts



The pie chart continues to agree with the previously determined observations. With the white pieces, I had a win rate of 48.13% compared to the 44.86% win rate with the black pieces. As shown, I was more likely to draw with the black pieces having a 8.65% draw rate. With the white pieces I had a lower 7.49% draw rate. The loss rate was also higher on the black pieces with a 46.49% loss rate and a lower 44.39% loss rate with the white pieces.