Sports Betting Analysis – Blueprint

Anticipating 4 stages

1. Player & Team Analysis
2. Odds & Payouts
3. Expected Value & Reliability
4. Archiving and Result Analysis

**Stage 1 – Player & Team Analysis**

**End Goal:** To receive an expected score for each team. This final score will be later used to make wagers on moneyline and over/under.

**Thoughts**

* At this stage, we do not care how accurate it is. We will tinker with accuracy in stage 3. However, certain stats will have a greater impact/weight. We will consider this.
* The model needs to be flexible to account for trades, injuries, etc. so therefore, I want the initial starting data to be player data as opposed to team data. It will then be formatted and bundled into their applicable teams.
* We want to take in the most recent data, but also have a long enough sample size to accurately predict what the next data point will be. KenPom format in which the beginning of the season uses 100% last year’s data, and then gradually phases in current season data.

**Process**

1. Import Data
   1. Using final 2020 data, analyze each individual player’s average output per game
2. Bucket by starting line up to get projected strength of team
   1. Sort the players by team/starting line up so you get a team average output per game
   2. Do this for offense and defense
3. Test/Train the model
   1. Combine offense of team A and defense of team B
   2. Combine offense of team B and defense of team A
   3. Test (2020) and Train (2021) the data against 2021 exact results
4. Migrate weighting of data by recent seasons