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Dr. Kristin Tufte
CS410 Data Science

Fantasy Basketball Optimizer Proposal

Project Objective:

The objective of this project is to create a program that will assist with fantasy basketball drafting. We intend to create a system by which we can optimize your roster by identifying the best player for your roster at any point in the draft.

Project Approach:

We intend to use Python as the primary language for the assessment algorithm and json object that represents the data on the draft prospects. The data being used are projections from ESPN on how each player will do in each fantasy category throughout the season. We will be calculating an overall distribution for each stat category amongst all of the players in the data set. We will then see how each possible player available at a given pick would affect the team's avg in each stat category. We will then compare those avgs with the overall distributions in each stat category. We will then make a value or measuring system to compare each of the possible combinations with each available player to determine which is the best pick. We will need to add a weight system for the different player positions to make the algorithm more likely to pick a player at a position of need. We will then make an interface so that a user can interact with the algorithm easily.

Team Structure:

The team consists of Santiago Tobon and MacKenzie Cooper, who will be dividing the programming burden equally amongst themselves. We will be consistently meeting on Sundays at 4pm work on the project. We will also use Monday and Wednesdays at 9pm if we need more time to get work done. We will be following a pair programming method of taking turns writing code while the other watches.

Project Milestones:

1. Design the algorithm and test it conceptually. By July 17th.
2. Implementation of the algorithm in Python. By July 31st.
3. Create an interface for interacting with the algorithm. By August 6th.
4. Finish up the program and run it through some tests. By August 14th.
5. Create a website from scratch that utilizes the Python code using flask. (Stretch goal). By August 14th.
6. Prepare the presentation of the project. By August 6th.