



CSE523 MACHINE LEARNING

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WDL

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Project 8: Athlete performance in collegiate basketball: Predicting match line-up
(Visualization on Dashboard)

Accomplishments:

- Reprocessed the dataset by removing features from merged Season 2 and Season 3 data that had more than 70% null values, enhancing data quality and relevance for analysis.
- Applied K-Means clustering to the dataset, aiming to identify patterns and groupings within the data that could inform strategic lineup planning.
- Collaborated with the AU Basketball Team to identify and discuss the relevance of specific features for match lineup planning, focusing on the importance of these features for different positions in a basketball match.
- Utilized the RSI (Relative Strength Index) for imputation, enabling the prediction of lineups based on the insights gained from the clustering analysis.

Challenges:

- Interpreting the results from the K-Means clustering to understand the implications for match lineup planning, particularly in terms of how different positions interact within a team.
- Addressing the challenge of handling missing data through imputation, ensuring that the predictions made are as accurate and reliable as possible.

Next Steps:

- Analyze the outcomes of the clustering and imputation processes to evaluate the effectiveness of the approach.