CSE523 MACHINE LEARNING

Weekly Report 4: 2 March 2024

WDL

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

Week 4: Data Cleaning and Model Training Preparation

Accomplishments:

- Experimented data cleaning techniques to handle missing values and outliers in the dataset.
- Explored various imputation methods to fill in missing data and ensure the completeness of the dataset.
- Investigated feature engineering techniques to enhance the predictive power of the models, considering the interrelationships between different variables.
- Developed strategies to deal with limited data by optimizing model architectures and regularization techniques.

Challenges:

- Balancing the trade-off between data cleaning and retaining as much information as possible for model training.
- Ensuring that imputation methods do not introduce biases or distortions in the dataset.
- Identifying relevant features and understanding their impact on the predictive task, especially in the presence of NULL values.

Next Steps:

- Begin model training using the cleaned and processed dataset, experimenting with different algorithms and hyperparameters.
- Continue to work on insights or challenges encountered during the data cleaning and model training phase.
- Prepare for the next phase of the project, which involves further dashboard development for visualization and interpretation of the results.