Internship Project Report

Project Title: IPL-2024-Data-Analytics-ML-DL-Model

Internship Period: 5th January 2025 to 20th March 2025

Student Name: Mayank Joshi

Course: BTech (AI & ML), 1st Year

University: Amrapali University

Mentor: YBI Foundation

Acknowledgment

I would like to express my sincere gratitude to my mentors at YBI Foundation for their valuable guidance and support during my internship. Their feedback helped me in improving my skills, and the experience gained has been invaluable for my learning journey.

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Executive Summary

This report outlines the work done during my internship project titled 'IPL-2024-Data-Analytics-ML-DL-Model', conducted at YBI Foundation. The project aimed at analyzing player performance from the IPL 2024 dataset using machine learning and deep learning models. It focused on identifying top performers based on various metrics such as runs, wickets, and strike rate. Additionally, a predictive model was developed to determine the best playing XI for a match based on historical performance data and machine learning techniques. The analysis led to the identification of the best players across different categories and helped in team formation

strategies.

Results and Analysis

The results of my analysis provided insights into the best-performing players for each category. For example, the model identified the top 4 bowlers, 3 all-rounders, 3 batsmen, and 1 wicketkeeper based on their performance during IPL 2024. Moreover, the deep learning model helped predict individual player performance based on past trends, aiding in team selection and strategy planning. Visualizations such as bar graphs and pie charts helped in better understanding player contributions.

Challenges Faced

During my internship, I encountered several challenges while working on the project. I came across many errors, and it took a significant amount of time and effort to debug them. Additionally, some aspects of the project, such as implementing machine learning and deep learning models, were initially difficult to grasp due to the fast-paced nature of the internship. However, I managed to overcome these hurdles through persistence and by seeking guidance from my mentors.

Learnings and Takeaways

The internship provided me with valuable hands-on experience in machine learning, deep learning, and data analysis. I learned how to apply various techniques to analyze real-world data, work with large datasets, and develop predictive models for performance evaluation. I also gained experience in debugging and troubleshooting errors, which improved my problem-solving skills. Overall, the experience was crucial for my growth as an AI and ML enthusiast.

Conclusion and Recommendations

In conclusion, the project was a successful learning experience, and the analysis of IPL 2024 data provided useful insights for team selection and player performance evaluation. The implementation of deep learning and machine learning models helped in predicting the best playing XI and forecasting individual performances. I would recommend that future projects involve more in-depth model evaluation, especially for the machine learning and deep learning algorithms, to enhance prediction accuracy.

References and Appendices

1. **YouTube Video:** https://www.youtube.com/live/vC7xtwdE5-Q?si=vXeLiycUPeRlPRm0
   - Used for inspiration in structuring the project and implementing key data analysis techniques.

2. **ChatGPT:**
   - Used as a supplementary tool for debugging and resolving technical challenges during the project. ChatGPT helped clarify certain technical concepts, generate ideas for solutions, and troubleshoot code errors, aiding in the development process.