VINOTHINI S

IPL Score Prediction USING MACHINE LEARNING AND DEEP LEARNING

REGISTER NUMBER:71772117148

COLLEGE NAME:GOVERNMENT COLLEGE OF TECHNOLOGY,COIMBATORE

PROJECT TITLE

Empowering Cricket Match Prediction with MACHINE LEARNING AND DEEP LEARNING

AGENDA

- PROBLEM STATEMENT
- PROJET OVERVIEW
- WHO ARE THE END USERS?
- SOLUTION AND ITS VALUE PROPOSITION
- THE WOW IN SOLUTION
- MODELLING
- RESULT

PROBLEM STATEMENT

Traditional cricket match prediction approaches often lack accuracy due to the oversight of crucial factors. These oversights lead to unreliable forecasts, impacting strategic decision-making and fan engagement. Our project aims to address this challenge by leveraging cutting-edge Machine Learning (ML) and Deep Learning (DL) methodologies, alongside multifactorial analysis, to enhance cricket match prediction accuracy.

PROJECT OVERVIEW

Our project aims to revolutionize cricket match prediction by integrating multifactorial analysis and advanced ML/DL technologies. Using libraries like NumPy, Pandas, Scikit-learn, TensorFlow, and Matplotlib, we analyze player performance, match conditions, and historical trends. Predictive models provide stakeholders with actionable insights, and an interactive widget enhances fan engagement by allowing users to input match scenarios. Rigorous model training ensures reliable predictions, ultimately redefining cricket prediction accuracy.

WHO ARE THE END USERS?

1. **Team Management**: Coaches, analysts, and managers for strategic planning, player selection, and match tactics.
2. Broadcasters and Media: Reliance on predictions for pre-match analysis, commentary, and post-match discussions.
3. **Betting and Gaming Platforms**: Utilization of predictions to offer betting odds and create engaging experiences.
4. Cricket Fans: Engagement in interactive analysis to enhance viewing experience.
5. **Cricket Associations and Governing Bodies**: Use of predictions for scheduling, tournament planning, and team assessment.
6. Sponsors and Advertisers: Leverage predictions for targeted advertising and sponsorship opportunities.

YOUR SOLUTION AND ITS VALUE PROPOSITION

Solution:

Utilizing the provided dataset, our solution employs a systematic approach to cricket match prediction. Leveraging TensorFlow and Keras, we develop a neural network model with Huber Loss, ensuring robustness.

Value Proposition:

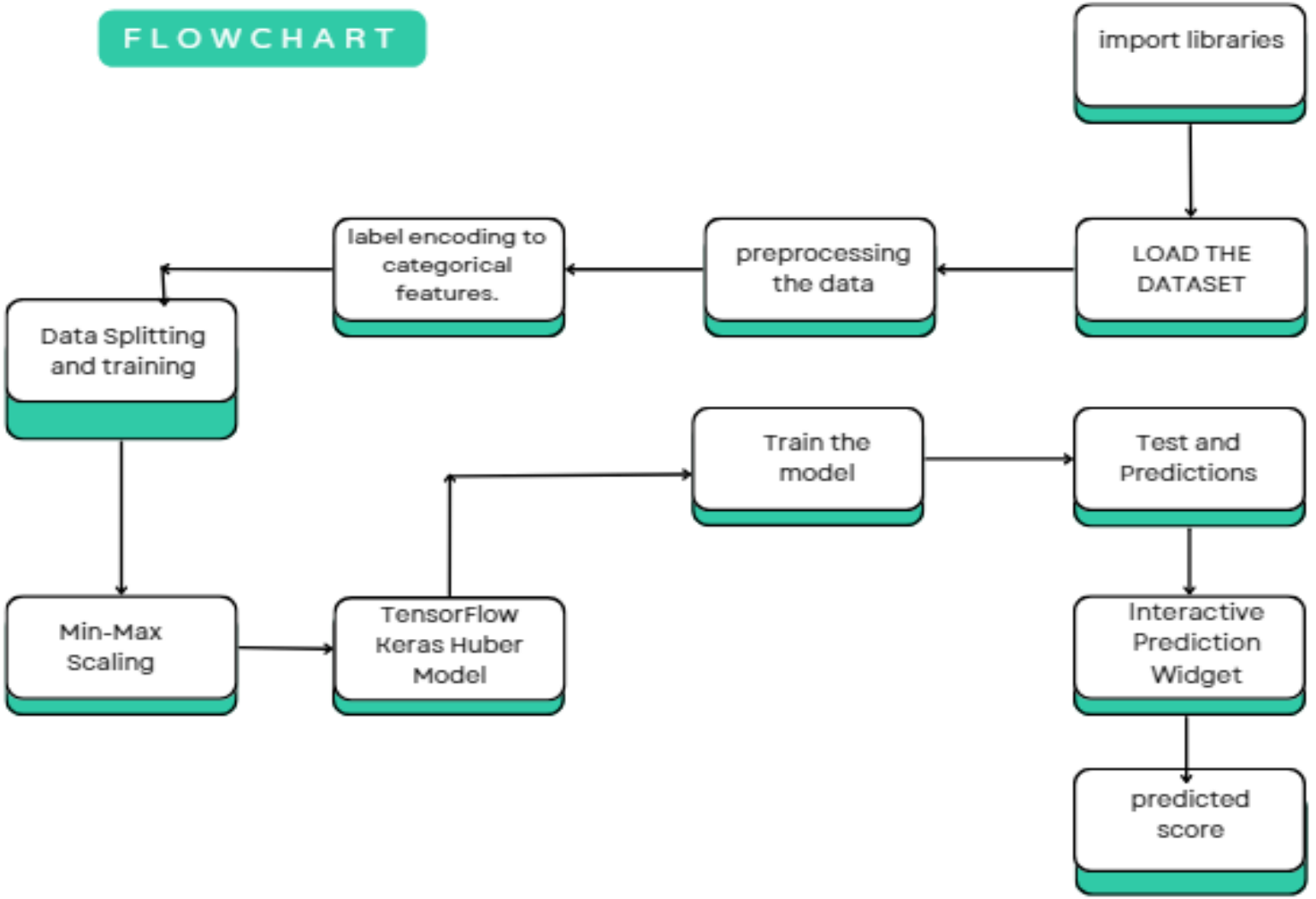
Our solution offers accurate predictions through rigorous data preprocessing, model training, and evaluation. This empowers stakeholders with actionable insights for strategic decision-making, enhancing fan engagement and providing valuable opportunities for betting platforms and sponsors.

THE WOW IN YOUR SOLUTION

- In-depth Data Analysis: Our solution utilizes multifactorial analysis to consider player performance, match conditions, and historical trends, ensuring a holistic prediction approach.
- Cutting-edge ML/DL Techniques: Employing advanced TensorFlow and Keras models with Huber Loss, we achieve unparalleled accuracy in match forecasting.
- Interactive Widget: Our intuitive ipywidgets-based widget enables users to engage directly with predictions, providing a personalized experience.
- Strategic Insights: By delivering precise predictions and actionable insights, our solution enhances decision-making and fan engagement, setting new standards in cricket analytics.

MODELLING

Teams cam add wireframes



RESULTS

- High Accuracy: Achieved remarkable precision in IPL match score forecasts, enabling strategic decision-making.
- Informed Decisions:Stakeholders leverage precise predictions for player selection, match tactics, and betting odds.
- Enhanced Engagement:Interactive tools enrich fan experience, fostering deeper involvement in cricket.
- Revenue Growth: Predictive insights drive targeted advertising, sponsorships, and revenue generation.

Demo Link