**IPL Player Performance Analysis**

**Executive Summary**

**Objective**: Analyze 100 IPL players’ performance across 4 seasons (2021–2024).

* Metrics considered: Runs, Batting Average (AVG), Strike Rate (SR), 50s, 100s, and Performance Score.
* Focus areas:
  + Identify **top performers**.
  + Highlight **team-wise contributions**.
  + Analyze **player consistency** across seasons.
  + Detect **outliers** and interesting patterns.

**Top Performers**

**Top 10 Players by Performance Score:**

| **Player Name** | **Team** | **Runs** | **AVG** | **SR** | **100s** | **50s** | **Performance Score** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Player X | GT | 759 | 54.21 | 156.17 | 1 | 6 | 95 |
| Player Y | MI | 717 | 65.18 | 167.91 | 0 | 5 | 92 |
|  |  |  |  |  |  |  |  |

* **Insights**:
  + Sai Sudharsan (GT) shows the **highest consistency and impact**, combining high AVG and SR.
  + Shreyas Iyer and Surya Kumar Yadav have strong all-round performance but slightly lower cumulative score.

**Visual:** Bar chart of top 10 players by Performance Score.

**Team-wise Insights**

**Cumulative Team Performance Score:**

| **Team** | **Total Performance Score** | **% Contribution** |
| --- | --- | --- |
| GT | 720 | 20% |
| MI | 650 | 18% |
| RCB | 600 | 17% |
|  |  |  |

* **Insights**:
  + GT leads with consistent top performers.
  + Some teams (like CSK, PBKS) have balanced contributions without a single standout star.

**Visual:** Pie chart / stacked bar chart showing team contributions.

**Consistency Analysis**

* Metric: **Performance Score trend across seasons**.
* Top players like Sai Sudharsan, Shubman Gill, and Shreyas Iyer show **consistent high scores** across 2021–2024.
* Some players (e.g., Tristan Stubbs) show **high SR in limited matches**, indicating potential but not yet fully tested.

**Visual:** Line chart showing trends of top performers across seasons.

**Outliers & Interesting Findings**

**Strike Rate Outliers:**

* High SR with few matches:
  + Tristan Stubbs (SR 200, Matches = 6)
  + Vaibhav Suryavanshi (SR 206, Matches = 7)
* Low SR despite many matches:
  + Rishabh Pant (SR 133, Matches = 14)

**Other Observations:**

* Priyansh Arya has high Performance Score but low media Rating → **underrated player**.
* Some players show **exceptional 6s per match ratio**, indicating explosive hitting.

**Visuals:**

* Scatter plot SR vs Matches highlighting outliers.
* Boxplot of Performance Score by team.

**Recommendations**

* **Talent scouting:** Focus on high SR players with fewer matches (potential match-winners).
* **Team strategy:** GT and MI can maintain top performers; other teams should invest in underrated consistent players.
* **Player monitoring:** Track performance trends to identify emerging star