Analyzing different factors influencing the performance of basketball players at Tigers Tübingen

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Which Factors influence the Performance of the Tigers Tübingen?

We consider different factors such as:

- Away or home game
- Outcome of the last match
- Day and time of the match
- Arena occupancy
- Rest days since last match
- Table position of Tübingen and opponent team
- Top performer in a match
- ...

Statistics of the Basketball Bundesliga 2023/24

Team statistics

match outcome, points scored (overall, 2er, 3er), point difference, fouls

Match context

Home or away game, date and time, table positions, ...

Individual player's performance

Points scored, assists, rebounds, fouls, minutes played, steals and turnovers

https://www.sportschau.de/live-und-ergebnisse/basketball/deutschland-bbl/se54029/2023-2024/ro15 4577/spieltag/md1/tabelle (team statistics & match context)

https://www.livesport.com/basketball/germany/bbl-2023-2024/results/ (player's performance)

Analysis Methods

Linear Regression

What impact has arena occupancy, num. rest days,... on overall performance of the tigers / a specific player?

T-Test

Do the Tigers score more points if

- it's a home game?
- they have a top performer in that specific game?
- they play against a team with a low position in the BBL table?

Logistic Regression

Can we identify match configurations (e.g. home game at 8pm against a team with a low table position) that lead to a win with high probability?