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Data Science Programming

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College Basketball Data Analysis Project Summary

This college basketball data analysis utilized Python and its data science libraries to unveil insights derived from a dataset retaining basketball statistics from 2014 to 2023; the individual Python libraries used include pandas, Matplotlib, Seaborn, and NumPy.

This data analysis unveiled presumed and unexpected insights. First and foremost, the Big 12, Big Ten, and Big East are the most skilled conferences. Secondly, offensive efficiency has gradually declined over the past decade. Third, offense has more of an impact on winning than defense, though the difference is minor. Fourth, better teams generally turnover the ball less. Lastly, teams that play at a faster tempo typically have more success offensively.

Using these insights, I recommend the following to college basketball coaches and staff members. Prioritize offensive skill development, as it correlates more with winning than defense. Enhance ball-handling training to reduce turnovers. Lastly, adopt a faster-paced playing style, as this will lead to a more efficient offense and, therefore, more wins.

In terms of future research opportunities, comparing regular season and postseason basketball could unveil some interesting insights. Additionally, analyzing individual players' impact and how each position on the floor affects the game could assist in developing player-specific training plans that prioritize skills that result in the most efficiency and success for specific player archetypes.