**College Football: The Decline of Defense**

**Is college football defense going the way of the dinosaur?**

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**Description:**

The NCAA is interested in how college football games are changing over time to determine if changes are needed to increase its popularity. The NCAA wants to start by determining the direction of defense in college football. We have been contracted to analyze college football data between the years of 1970 and 2020 to determine if the importance of defense is decreasing.

**Research Questions to Answer:**

* Has defense become less important to the game?
  + Have average points per game increased over time?
  + Have the number of turnovers per game decreased over time?
  + Have the total yards per game increased over time?
  + Have the number of third downs decreased over time?
* Has college football attendance increased over time?

**Hypothesis:**

* Offense brings more people to games
* Overly defensive games are less entertaining, leading to less viewers

**Dataset to be Used:**

College Football Data API

College Football TV Ratings Dataset

**Task Breakdown:**

* Initial data research
* Collect & clean data for tv ratings from 1970 to 2020
* Calculate average points scored per game from 1970 to 2020
* Calculate average turnovers per game from 1970 to 2020
* Calculate average total yards per game from 1970 to 2020
* Calculate number of third downs per game from 1970 to 2020
* Graph all four sets of data by year
  + Create linear regression
  + State r-value and the strength of relationship
* Discuss data limitations
* Create PowerPoint