Capstone Ideas

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NFL Big Data Bowl on Special Teams

- NFL hosts an annual Big Data Bowl competition on Kaggle since 2018.
  - [NFL Big Data Bowl 2022](#)
  - Focus this year on Special teams
    - Punts, Kickoffs, Field Goals, Extra Points
- Ideas
  - Field Goal Attempts in last 2 minutes of each half and overtime
    - Success vs. failure
  - Receiving Team Kickoff Success Rate
    - Define Success
    - Classify when to return kick and when to fair catch or touchback

State Education Funding & Graduation Rates

- Suppose that the Federal Government is considering giving additional K-12 funding to one or more of States to assist in increasing High School Graduation Rates:
  - Which State or States should be given additional funding?
    - Which are most in need
    - Which states will do more with funding compared to peers
    - Will additional funding actually increase HS grad rates?
  - Data Access
    - Data.gov
    - • Per pupil public school expenditure in the US by state 2020
    - State Websites
- Regression Model to predict which state would benefit most

Alzheimer's, Dementia, & COVID19

- Personal Relevance
- Impacts of COVID19 and current pandemic on individuals with Alzheimer's, Dementia, or both.
  - Did isolation worsen symptoms?
  - Did access to adequate care lessen?
  - Death rates increase during
- Success defined as predicting patient outcomes before and during pandemic
- Data
  - CDC, Kaggle, Data.org