This is a short summary of the three projects that I am looking at for the Springboard Data Science Introduction course:

1. I have developed a calculation that could possibly guess the correct outcome of an American College Football game against the spread. I want to determine if a) how good of a correlation that my calculation has against points per game. b)to see if the calculation is correct more than 52.4% of the time over a seven year period. b) if there are any variables such as team performance, home field advantage, etc that could improve the prediction level.
2. A previous employer of mine produces polyester resin for powder coatings (dry paint). One of the main problems that they had out in the marketplace was consistency of product. This inconsistency caused coating defects when two coatings using a particular product with different lots were mixed together. I want to look at such variables such as acid/OH number, residual OH/acid number, viscosity, molecular weight, corrections during process to determine if any variables either separately or together can help manufacture more consistent resins. Note-I am still in talks with this company to do this project. I do not know if they will let me or not.
3. I have developed a rudimentary calculation for the NCAA college basketball tournament that has allowed me to narrow down the eventual champion from 8 choices. This has been correct in 16 of the last 17 years. This calculation has also predicted the eventual champion in 6 of the last 17 years. I would like to look at more variables that will be able to improve not only picking the National Champion, but also improve accuracy in all 63 games in a particular tournament (in last 17 years, prediction accuracy is 51%