Outcome of your EDA

Through this EDA process, I understand that different components added to cement can Increase the compression strength of concrete. All of the components add some strength, but practically using all of them in one batch would not make sense after adding an aggregate more than required will give diminishing returns.

What do you feel was missed during the analysis?

I am not sure that this dataset was appropriate for this assignment. I wanted to use some medical data, but it was taken down when I tried to download it from DHHS.

The only thing I think was missed was answering my question, which was, can I come up with a mixture of aggregates that will maximize concrete strength in the shortest time? This was mostly due to the fact that I didn’t know how to enter my selection in the regression model that I created.

Were there any variables you felt could have helped in the analysis?

I think that the data had the appropriate variables for the mixing of concrete. I don’t have the extensive domain knowledge to know if other aggregates can be used to change the compression strength of concrete. Maybe testing with silica sand might add something to it.

Were there any assumptions made you felt were incorrect?

The assumptions that I made were using less water, and more aggregate would strengthen the concrete and shorten the time it takes to set. The data suggests that there is an optimal proportion of each material to give the best outcome.

What challenges did you face, what did you not fully understand?

A couple of things came up that I didn’t understand. I didn’t understand how to put my values into the model to test how strong my mixture would be. When I ran the CDF for Fly Ash, the graph didn’t come out the way that I had expected. I expected it to start at zero and then curve up, but it didn’t. It was one big step, then a few more little steps, and then curved up.