Neural Network report

The point of this Charity funding predictor is to create an algorithm to predict whether certain applicants for funding would be successful.

Preprocessing:

* We first start by loading in the CSV that contains over 30,000 organizations that have received funding from alphabet soup over the past few years.
* Now we know that our target is the column Is\_Successful and whether this reads a yes or a no.
* Once we determine our target, we know that we need to drop some columns, this is the EIN and NAME columns. These are unrelated to our algorithm.
* We then attempt to trim the rare categorical values in our columns that have 10 or more unique values. And add a new name for this called other.
* Using get \_dummies we then encode the categorical variables

Compiling, Training, and Evaluating the Model:

* For the first model I used 2 hidden layers. This was to get a baseline of what my accuracy would be just given a simple 2 hidden layers. One relu and one sigmoid to see if I could get to an accuracy of 75 percent. I was unable to, only reaching about 72.
* For the second model I used 3 hidden layers. This time only pulling an accuracy of a higher 72.7
* For the last model I used 4 hidden layers. This time getting a higher 73.13.

**Summary:**

**With these results I think going back and doing some more preprocessing would get a score that would be much higher as the layers only seemed to increase by 1%. Possibly dropping more columns that may not be entirely relevant to the model we need, or changing what we considered rare categorical values.**