**Overview**

I as a data scientist in a non-profit foundation Alphabet Soup has created an algorithm to predict whether or not applicants for funding is successful. I have used various features in the provided dataset to create a binary classifier that is capable of predicting whether applicants will be successful if funded by Alphabet Soup.

**Results**

Data Preprocessing

* What variable(s) are considered the target(s) for your model?

**Target is “is successful Column”**

* What variable(s) are considered to be the features for your model?

**All Column except “Ein” and “Name”**

* What variable(s) are neither targets nor features, and should be removed from the input data? **Dropped “Ein” and “Name”**

Graphical user interface, application

Description automatically generated

Compiling, Training, and Evaluating the Model

* How many neurons, layers, and activation functions did you select for your neural network model, and why?

**We started 3 layers. 2 relu and 1 sigmoid and later we kept and adjusting to get target predictive accuracy higher than 75%.**

* Were you able to achieve the target model performance?

**Unfortunately, no but if we added name column probably will get the desired accuracy of 75%**

* What steps did you take to try and increase model performance?

**Added neurons, added more layer and changed activation from relu to Sigmoid.**

Text

Description automatically generated with medium confidence

**Summary**:

Our neural network got the highest accuracy of 72.67%. It seems to increase the accuracy we need to change preprocessing it should increase the accuracy. but with all adjustment it remains at & 72.67%.