**Analysis Report**

Purpose of the analysis:

The nonprofit foundation Alphabet Soup wants a tool to help it select the applicants for funding with the best chance of success in their ventures. I wanted to create a binary classifier that can predict whether applicants will be successful if funded by Alphabet Soup.

Results:

* Target Variable: ‘IS\_SUCCESSFUL’ column in application\_df
* Feature Variables: Every column that was in application\_df that was not ‘IS\_SUCCESSFUL’
* Dropped/Removed Variables: ‘EIN’ and ‘NAME’ were removed as they were neither targets or features
* Neurons, Layers, and Activation Functions: I used three hidden node layers and using 4, 8, and 16 for the layers
* Target Model Achieved?: No, it was just under 75% at 73%
* Steps Taken to Increase Performance: I added back the ‘NAME’ column to help binning. This helped it reach an accuracy 78.5%

Summary:

The deep learning model was about 73% accurate. Using a different model, the accuracy was raised to 78.5%. A recommendation for another model would be to have it use inputs with more correlation as well as adding more activation functions and nodes to better predict the problem.