**Overview:**

The purpose of this analysis is to develop a binary classifier, created with provided data, to assist the nonprofit “Alphabetical Soup” in determining the likelihood of success for applicants requesting funding.

**Data Processing:**

1. What variable(s) are the target(s) for your model?

* “IS\_SUCCESSFUL” column from the provided data.

1. What variable(s) are the features for your model?

* Columns from the provided data that remain after dropping
  + NAME
  + APPLICATION
  + TYPE
  + AFFILIATION
  + CLASSIFICATION
  + USE\_CASE
  + ORGANIZATION
  + INCOME\_AMT
  + SPECIAL\_CONSIDERATIONS
  + STATUS
  + ASK\_AMT

1. What variable(s) should be removed from the input data because they are neither targets nor features?

* The “EIN” column was removed from the data in the creation of my model.
* Columns that *should* be removed
  + EIN
  + SPECIAL\_CONSIDERATIONS
  + STATUS

**Compiling, Training, and Evaluating the Model:**

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

* My final neural network model contained 3 hidden layers. More layers and exploration of activation functions helped to slightly improve accuracy.

1. Were you able to achieve the target model performance?

* I am, personally, not satisfied with an accuracy of about 73%.

1. What steps did you take in your attempts to increase model performance?

* In the end, the “NAME” column was included and converted into data points. Adding a third layer and changing some activation functions to “sigmoid” helped marginally.