Alphabet Soup

Overview:

The goal of this project was to identify non profits with the greatest potential for success. After building the predictive model we aimed to determine which organizations to fund as they had the most promising outlook

Data Preprocessing

- The target variable for the model is IS_SUCCESSFUL which determines if the business was successful
- The features for the model include all columns in the csv except for IS_SUCCESSFUL, EIN and NAME.
- The EIN and NAME columns were removed

Model Architecture:

- **Hidden Layer 1:** 80 neurons ReLU
- **Hidden Layer 2:** 30 neurons ReLU
- **Output Layer:** 1 neuron, Sigmoid

Model Performance:

The model was trained and reached an accuracy of about 73.8% while testing showed an accuracy of 72.99%. We determined that 3 layers was the perfect amount to use so that the model was not overfitted and it did not make it too complex.

Summary:

Although our accuracy of the model was fairly high, we did not achieve 75 percent accuracy which is unfortunate which means that tuning to the model should probably be done. A suggestion could be to use Random Forests or Keras as futures models as those might have more success.