Overview

The purpose of this analysis is to predict if funding will be successful. We will be looking at a dataset containing more than 34,000 organizations and their metadata.

Results

Data Preprocessing

For our dataset, we removed the EIN and NAME columns. We then sorted the APPLICATION_TYPE column by their unique values and chose a cutoff value of 528. Everything that was not in the cutoff was put into an Other category. Next, we binned the CLASSIFICATION column and chose a cutoff value of 100. Similarly, the elements that were not in the cutoff were put into an Other category. We then used the get_dummies function to convert the categorical data to numeric data and set our y and X values. After splitting and training the data, we can finally train our model.

Evaluating the Model

The first model that we got had an accuracy of 0.7247. This model had 2 layers with 80 and 30 neurons respectively. The other models had similar accuracies, and did not reach the targeted accuracy of 0.75. I tried adding more layers, reducing neurons, and adding neurons for all of the three different models but with no luck.

Summary

We did not reach the target accuracy of 0.75. This is probably due to the fact that the data needs to be filtered more. Perhaps if we included the NAME column back in and binned it, our model would've reached the targeted accuracy. It is also possible that adding more layers could've increased our accuracy as well.