Challenge 21: Alphabet Soup Written Analysis 8.21.2023

This written report contains an analysis of the deep learning, Alphabet Soup challenge.

Data Processing:

1. What variable(s) are the target(s) for your model? The Is\_Successful data is the target for my model.
2. What variable(s) are the features for your model?

All other columns appear to be features, since the target is the Is\_Successful data.

1. What variable(s) should be removed from the input data because they are neither targets nor features? The EIN and Name data was dropped; therefore they are not targets or features.

* Compiling, Training, and Evaluating the Model

1. How many neurons, layers, and activation functions did you select for your neural network model, and why? I used 5 hidden\_nodes\_layer1 and 8 hidden\_node\_layer2. I didn’t have a particular reason why I chose the number of respective layers.
2. Were you able to achieve the target model’s performance? No, I did not achieve >75%.
3. What steps did you take in your attempts to increase model performance? I added and subtracted the number of layers to achieve higher accuracy.

Summary: With this model, in the deep learning challenge, I achieved 72% accuracy with a loss of 55%. Maybe is better data cleanup and correlation, better accuracy would have been achieved.