

Report on the Neural Network Model

Data Preprocessing

- What variable(s) are the target(s) for your model? The 'IS_SUCCESSFUL' column is the target value.
- What variable(s) are the features for your model? All the other columns in the dataset except for the target variable.
- What variable(s) should be removed from the input data because they are neither targets nor features? 'EIN' and 'NAME' columns are neither targets nor features and were therefore dropped from the original dataframe.

Compiling, Training, and Evaluating the Model

- How many neurons, layers, and activation functions did you select for your neural network model, and why? In my first attempt, I used 8 hidden nodes for the first layer and 5 hidden nodes for the second layer. These were chosen at random.
- Were you able to achieve the target model performance? I was not able to achieve the target model accuracy of 75%
- What steps did you take in your attempts to increase model performance? In my attempts to increase model performance, I added more layers, additional hidden nodes and changed the activation functions. Despite these adjustments, the desired accuracy level was not reached.

Summary

The deep learning model achieved approximately 73% accuracy in predicting the classification problem. Perhaps improving the connection between input and output may boost accuracy. This can be achieved by thoroughly cleaning up the data initially and trying out different activation functions.