Deep Learning Challenge

Overview of Analysis:

Alphabet Soup, a nonprofit foundation, is looking for a tool that can help them select applicants for funding that has the best chance of success in their ventures. We want to create a binary classifier that predicts whether the applicants will be successful if getting their funding from Alphabet Soup.

Results:

- Data Preprocessing
  - The target variable was "IS_SUCCESSFUL".
  - The variables that are featured were every other column from application_df.
  - The variables that we removed were "EIN" and "NAME".
- Compiling, Training, and Evaluating the Model
  - I selected hidden_nodes_layer1=7,hidden_nodes_layer2=14,hidden_nodes_layer3=21.
  - I wasn't able to achieve the target model performance.
  - I added more layers and removed more columns to maybe achieve higher model accuracy.

Summary:

In summary, the deep learning model was around 73.12% accurate in predicting the problem. Another model that we could use to solve the problem is using a model with a greater correlation between input and output which would help getting a higher prediction accuracy. We can do some data cleanup and iterating until higher accuracy is reached.