

## **Alphabet Soup Analysis**

- Overview
  - A tool to assist the nonprofit foundation Alphabet Soup in selecting funding applicants was required. In order to determine whether applicants will be funded by Alphabet Soup, they require a binary classifier.
- Data Preprocessing
  - The dataset was cleaned of metrics like EIN and Name that were not necessary, and the model considered all of the other metrics. The model had features like Application Type and Classification.
- Compiling, Training, and Evaluating the Model
  - Neural Network was utilized on each model and initially set with 2. Three layers were added to the final model, resulting in an accuracy of over 75%. I kept Name as a feature, binned the values, and kept Name in the model to achieve model performance. Classification remained a model feature as well.
- Summary
  - Many layers should be taken into consideration, so it can proceed to foresee and group data as determined by the model.