**Alphabet Soup Charity applicant selection model**

Deep Learning analysis is being used to create a model to determine which applicants would be the most successful candidates to receive funding from Alphabet soup.

**Data Preprocessing**

* The target variable is ‘IS\_SUCCESSFUL’ column. This column is binary coded to 1 for successful applicants and 0 for unsuccessful applicants.
* The feature variables are all other columns remaining in the dataset.
* The removed variables are ‘EIN’ and ‘NAME’ for the original model and just ‘EIN’ for the optimized model.

**Compiling, Training and Evaluating the Model**

* The original model had three layers with 6,061 parameters. The model performance rate was under the target rate with 72% accuracy.

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* In the second version of the model, I had three layers with 10,861 parameters. With this model, I was able to achieve the target model performance of 76%.

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* To increase optimized model performance, I needed to add back in the ‘NAME’ column.

In summary, the second model with the ‘NAME’ column meet the targeted objective.