# alphabet soup prediction model

To help alphabet soup predict what organizations they should fund, a neural network prediction model has been created to accurately predict whether a company is a good candidate for funding.

## Data Preprocessing

* We are targeting the variable that determines whether a startup was successful or not.
* The features we created are the tiers for applications and classification values.
* We have omitted the EIN and NAME variables.

## Compiling, Training, and Evaluating the Model

* We used 72 neurons for our first and second layer and 144 for our third layer. We had 4 layers in total. We used 72 to match the x train data length and 144 to account for true or false.
* We were unable to achieve the target accuracy, our accuracy was only 73%
* To optimize our model we added another layer, changed the activation method of some of the layers and added more neurons to each layer.

## CoNCLUSION And the future

We found that this model was unable to perform to a high enough standard for the company. We believe that creating a more accurate model is achievable. Our next model would use random forest instead of neural networks, we believe that random forest is a better fit for our model. It would easily allow us to prevent overfitting.