

## **Written report for deep learning model “Alphabet Soup”**

- **What variable(s) are the target(s) for your model?**

The target variables used “IS\_successful” column printed in application\_df

- **What variable(s) are the features for your model?**

The following feature variables: APPLICATION\_TYPE AFFILIATION CLASSIFICATIONUSE\_CASE

ORGANIZATION STATUS INCOME\_AMT SPECIAL\_CONSIDERATIONS ASK\_AMT

- **What variable(s) should be removed from the input data because they are neither targets nor features?**

Both 'EIN' and 'NAME' columns were removed from the input data.

- **How many neurons, layers, and activation functions did you select for your neural network model, and why?**

Not Applicable

- **Were you able to achieve the target model performance?**

I was not able to achieve the 75% model accuracy target, the highest achieved was

72.25%

- **What steps did you take in your attempts to increase model performance?**

I tried to manipulate the data set by removing columns, making sure the codes were running properly and re-running the codes.

**Summary: Summarize the overall results of the deep learning model. Include a recommendation for how a different model could solve this classification problem, and then explain your recommendation.**

In conclusion, I would say that I achieved a score of 72.25% which was below the model accuracy target.

To improve the performance of a model, what makes sense to me is to introduce it to more cleaned training data samples, and the more data it learns from, more cases would be able to correctly identify.