

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 73.7%

- **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 73.7% 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.