Deep Learning Homework: Charity Funding Predictor

Deep Learning with neural networks was utilized to determine if applicants would be successfully funded by AlphabetSoup.

Data Processing

The first step was to remove information that did not serve a purpose for our analysis. Therefore “EIN” and “Name” were dropped from the model. What remained was used as the features for the model. Two column labels were renamed to have a more relevant title. The data was split into training data and testing data. The target variable was verified by a number value, 1 for yes and 0 for no.

Compiling, Training, and Evaluating the Model

Neural Network was used on the models.

```
Model: "sequential"
_________________________________________________________________
 Layer (type)                Output Shape              Param #
=================================================================
 dense (Dense)               (None, 7)                 343

 dense_1 (Dense)             (None, 14)                112

 dense_2 (Dense)             (None, 1)                 15

=================================================================
Total params: 470
Trainable params: 470
Non-trainable params: 0
_________________________________________________________________
```

The layers used generated 470 parameters with an accuracy of 73% which is under the level of accuracy that is optimal.

```
268/268 - 0s - loss: 0.5525 - accuracy: 0.7310 - 241ms/epoch - 900us/step
Loss: 0.5525112748146057, Accuracy: 0.7309620976448059
```

Summary

Multiple layers should be used to obtain the best accuracy as possible. This will help in better predicting and classifying information.