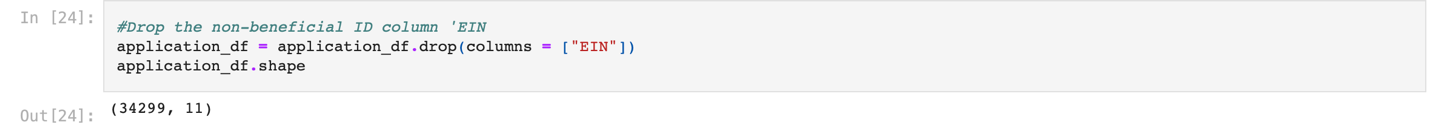
Charity Funding Predictor

1. **Overview**

This analysis was done to create a binary classifier that would allow to predict whether or not applicants for funding of the non-profit foundation, Alphabet Soup, will be successful. As the main resource for this project a csv file containing data of over 34,000 entities, which have previously received funding from the foundation, was employed.

1. **Results**: Using bulleted lists and images to support your answers, address the following questions.

* Data Preprocessing
  + For both the starter code and the optimised model the pre-processing was very similar. A crucial difference was that in the first model the columns “EIN” and “NAME” where both dropped as they were categorised as non-beneficial. On the other hand, in the optimised model only “EIN” was dropped. A second difference was the cut-off value used for the applications to be replaced in the dataset was, reduced for the optimised version changing from 600 to 500. The main variables considered for the optimised model where CLASSIFICATION, APPLICATION\_TYPE and NAME.



Text

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* Compiling, Training, Evaluating the Model and Summary
  + For the neural networks, three were used on both models. Additionally, the use of multiple layers in the two models generated pretty decent accuracy levels

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**Summary**:

The deep learning optimised model achieved the target performance with a 79% accuracy if rounded. The previous model achieved 72%, which was way below target. For other possible models, I would recommend maybe working with more layers as Deep Learning models outperform with more information because it teaches the machine how to classify data with more accuracy as it filters through more information.

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