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Alphabet Soup Charity Funding Analysis

The purpose of this assignment was to help a nonprofit organization, Alphabet Soup, create a tool that will help to select candidates and applicants for funding with the best chance of success. We will use machine learning to create a binary classifier that will predict the success of an applicant based on previous data.

My first step in creating this was to preprocess the dataset. During this, the EIN and NAME columns were dropped. I then analyzed the columns that were targets, Application Type and Classification, whereas the other columns were features. After splitting, the training and testing datasets were created and I evaluated the model. I then set the epochs to 100 and train the model.

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Description automatically generated with medium confidence

My evaluation showed an accuracy of 0.726997.

In my next optimized model, I dropped only the EIN columns and evaluated the NAME columns. I kept the columns for binning the same. However, I added another layer to the model to keep the number of modes the same.

After processing this model, the accuracy increased to 0.7905539. Significantly better than my previous model and more than the required 75%.

Table

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