**Deep Learning Report**

**Overview:**

Our analysis includes a deep neural network, which models the features needed to approve loans for charities. We utilized the Tensorflow model with multiple different layers to optimize this model.

**Data Preprocessing:**

Our preprocess begins with the charity\_data.csv dataset, we read our data and note the target, feature, and variable that is irrelevant.

* Target Variable: IS\_SUCCESSFUL
* Feature Variable: APPLICATION\_TYPE, AFFILIATION, CLASSIFICATION, USE\_CASE, ORGANIZATION, STATUS, INCOME\_AMT, SPECIAL\_CONSIDERATIONS, ASK\_AM
* Variable to be removed: EIN, NAME

**Compiling, Training, and Evaluating the Model:**

Our neural network was applied to a total of three multiple layers. The number of features determined the number of modes. Thus, generating a model of 477 parameters. We did not achieve our target because it came out to 72%, which is below our desired target at 75%.

**Summary:**

Our deep neural network model that predicts loan applicant success from our dataset, only had an accuracy if 72%. It does not meet our accuracy target of 75%.