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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%.