## **Neural Network Analysis**

The purpose was to create a neural network that could predict if a venture would be successful and use the money provided effectively based on some various datapoints provided in the dataset.

- Variable target was IS SUCCESSFUL
- Variable features were that were used were
  - APPLICATION TYPE
  - o AFFILIATION
  - CLASSIFICATION
  - o USE CASE
  - ORGANIZATION
  - STATUS
  - o INCOME\_AMT
  - SPECIAL\_CONSIDERATIONS
  - o ASK AMT
- Removed features
  - o EIN
  - o NAME

## Model

- There were 1 layer with 9 neurons using relu
- I was just under the target performance by only a couple percentage points despite trying multiple methods
  - The one method that was really beneficial was to only scale the ASK AMT column
  - I also tried all the different activations and several different layer numbers and neurons both lower and higher that did not have much effect