#### 551 AI

## Assignment 5 Report

### Richa Patel

The best 3 architectures using adagrad are as follows

 Test accuracy = 95.85 num\_of\_layers: 3

• Layer 0: 32

• Activation function 0: tanh

• Layer 1: 128

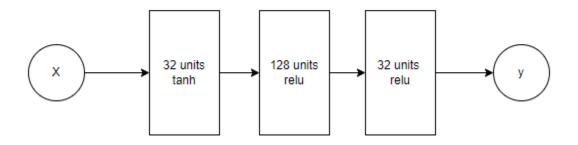
• Activation function 1: relu

• Layer 2: 32

• Activation function 2: relu

• Score: 0.9585416515668234

### 1. Test accuracy = 95.85 %



# 2. Test accuracy = 95 %

num\_of\_layers: 4

• Layer 0: 32

Activation function 0: sigmoid

• Layer 1: 96

• Activation function 1: relu

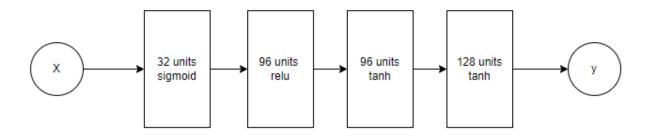
• Layer 2: 96

• Activation function 2: tanh

• Layer 3: 128

• Activation function 3: tanh

### 2. Test accuracy = 95 %



# 3. Test Accuracy = 94.89 %

num\_of\_layers: 5

- Layer 0: 128
- Activation function 0: sigmoid
- Layer 1: 128
- Activation function 1: tanh
- Layer 2: 96
- Activation function 2: tanh
- Layer 3: 32
- Activation function 3: relu
- Layer 4: 32
- Activation function 4: relu
- Score: 0.9489236076672872

## 3. Test accuracy = 94.89 %

