

Pseudo-Code: Set the max number of neurons and layer we want to test and run all of them starting from 2 neurons and 2 layers. The program saved the set up for the least loss.

```
Int bestLoss = max_int; //least loss
Int bestNeurons = min_int; // # of neurons for least loss
Int bestLayers = min_int; // # of layers for least loss
Int Elapsed; //time it takes to run
int maxNeurons; // # number of neurons you want to test up to
int maxLayers; // # number of layers you want to test up to
int tempLoss; //loss placeholder
For (int i = 2, i < maxNeurons, i++) { //starting from 2 neurons
    For (int j = 2, j < maxLayers, j++) { //starting from 2 layers
        Starttime; //start the clock
        For (int k = 0, k < j, k++) { //loop layer
            if (k == 0){ //first layer transform to Ri
                nn.Linear(1, i);
                nn.Sigmoid(); //can be either ReLu or Sigmoid
            }
            else if (k == j - 1){ //last layer to transform back to R1
                nn.Linear(i, 1);
            }
            else { //all the layer in between
                nn.Linear(i, i),
            }
        }
    }
    Endtime; //stop the clock
```

(Run whatever is left in collab code necessary for loss calculation aka copy and paste)

```

tempLoss = loss.item();           //register the loss
if (tempLoss < bestLoss){         //if this test run is better then remember
    bestLoss = tempLoss;         //the loss
    bestNeurons = i;             //# of neurons
    bestLayers = j;              //# of layers
    Elapsed = endtime – starttime; //time it takes
}
}
}

print(bestLoss);                 //print out the best statistics
print(bestNeurons);
print(bestLayers);
print(timeElapsed);

```