```
Class: Layer

-_neurons:Neuron*[]

+Layer()
+Layer(Neuron*[] neurons)
+~Layer()

+Neuron*[] getNeurons()
+void setNeurons(Neuron*[] input)

+void calcValues(Layer* input)

+Neuron* operator[]()

+int getNumberOfNeurons()
```

## Class: NeuralNetwork -\_hiddenLayers:Layer\*[] -\_inputLayer:Layer\* -\_outputLayer:Layer\* -\_loss:float[] +NeuralNetwork() +~NeuralNetwork() +int loadFromFile(char\* path) //returns output code +int saveToFile(char\* path) //lol same +calcLoss() +calcLoss() +calcHiddenLayer() +calcInputLayer(Vector input) +fixNetwork() //gradient +test()

```
Class: Vector
-float[]: values
+Vector()
+Vector(float[] values)
+~Vector()
+float[] getValues()
+void setValues(float[] values)
+float operator[]()
+crossWithVector(Vector* other)
         Class: Matrix
-float[]: values
+Matrix()
+Matrix(float[][] values)
+~Matrix()
+float[][] getValues()
+void setValues(float[][] values
+Vector operator[]()
+crossWithVector(Vector* xVec)
        Class: Neuron
```

```
-_wieghts:Matrix*
-_bias:float
- output:float
```

```
+Neuron()
+Neuron(float value)
+~Neuron()

+float calcOutput(Vector* input)
+float calcSigmod(float input)

+float getOutput()

+Matrix* getWeights()
+void setWeights(Matrix* wieghts)
```