

Aimotive C++ test

A simple neural network implementation by Máté Kerekes.

This is the user manual. For documentation on the source code, see the [README.md](#) in the root directory of the project source.

Usage

```
> neuralnet input1 input2 ... inputn
```

With the default network:

```
> neuralnet 0.2 -0.4 0.6
Inputs =====
+0.2000000 -0.4000000 +0.6000000
Results =====
+0.0011591 +0.0007003
=====
```

Network

The default configuration implements a neural network described by the following structure:

```
Layers:
  Input (3 nodes)
  Hidden 1 (3 neurons)
  Output (2 nodes)

Weights:
  Input -> Hidden 1
  0.1200, 0.0500, 0.0300, 0.0000
  0.3200, 0.0100, 0.0135, 0.0000
  0.0450, 0.0200, 0.0230, 0.0000

  Hidden 1 -> Output
  0.0370, 0.0230, 0.0610, 0.0000
  0.0420, 0.0510, 0.0100, 0.0000
```

The weights above are in a matrix format where the i th row's j th column represents the input weight that maps the j th neuron of the first layer to the $i-1$ th neuron of the second. The last element of each row is the bias term.