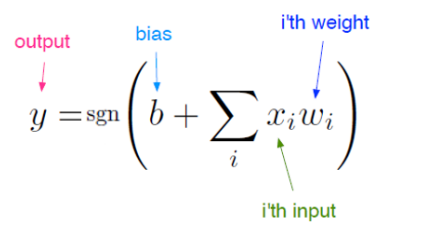
Week 4

**Perceptron**

Perceptron is a linear classifier.

Predicted Output = sgn function (dot product (Weight transpose and input) + bias)

Train weight vector and bias term



Graphical user interface, text, application

Description automatically generated

**Single Layer Neural Network**

Diagram

Description automatically generated with low confidence

Diagram

Description automatically generated

Diagram, schematic

Description automatically generated

**Chain Rule and Gradient Descent for Neural Network**

Text

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Text

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Single Layer Neural Network can’t handle non linear data, hence we add multiple neurons.

**Feed Forward Neural Network**

It is acyclic.

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Diagram

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MLP Main Equation

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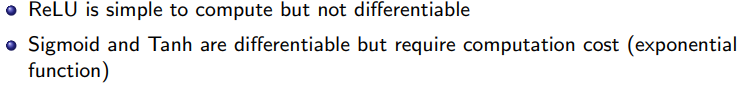
Activation Functions

Sigmoid Chart

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Description automatically generatedReLU Chart, line chart

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Text, application

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