Notation	Meaning
a_i	Activation value of unit i (also the output of the unit)
$\mathbf{a}_i$	Vector of activation values for the inputs to unit i
g	Activation function
g'	Derivative of the activation function
Err_i	Error (difference between output and target) for unit i
Err^e	Error for example e
I_i	Activation of a unit i in the input layer
$\mathbf{I}$	Vector of activations of all input units
$\mathbf{I}^e$	Vector of inputs for example e
in_i	Weighted sum of inputs to unit i
N	Total number of units in the network
O	Activation of the single output unit of a perceptron
O_i	Activation of a unit i in the output layer
$\mathbf{O}$	Vector of activations of all units in the output layer
t	Threshold for a step function
T	Target (desired) output for a perceptron
$\mathbf{T}$	Target vector when there are several output units
$\mathbf{T}^e$	Target vector for example e
$W_{j,i}$	Weight on the link from unit j to unit i
W_i	Weight from unit i to the output in a perceptron
$\mathbf{W}_i$	Vector of weights leading into unit i
$\mathbf{W}$	Vector of all weights in the network