

1. Present example \mathbf{x} to the input layer and propagate it through the network.
2. Let $\mathbf{y} = (y_1, \dots, y_m)$ be the output vector, and let $\mathbf{t}(\mathbf{x}) = (t_1, \dots, t_m)$ be the target vector.
3. For each output neuron, calculate its responsibility, $\delta_i^{(1)}$, for the network's error:
$$\delta_i^{(1)} = y_i(1 - y_i)(t_i - y_i)$$
4. For each hidden neuron, calculate its responsibility, $\delta_j^{(2)}$, for the network's error. While doing so, use the responsibilities, $\delta_i^{(1)}$, of the output neurons as obtained in the previous step.
$$\delta_j^{(2)} = h_j(1 - h_j) \sum_i \delta_i^{(1)} w_{ji}$$
5. Update the weights using the following formulas, where η is the learning rate:
output layer: $w_{ji}^{(1)} := w_{ji}^{(1)} + \eta \delta_i^{(1)} h_j$; h_j : the output of the j -th hidden neuron
hidden layer: $w_{kj}^{(2)} := w_{kj}^{(2)} + \eta \delta_j^{(2)} x_k$; x_k : the value of the k -th attribute
6. Unless a termination criterion has been satisfied, return to step 1.