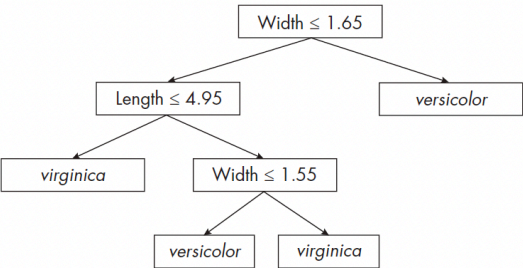
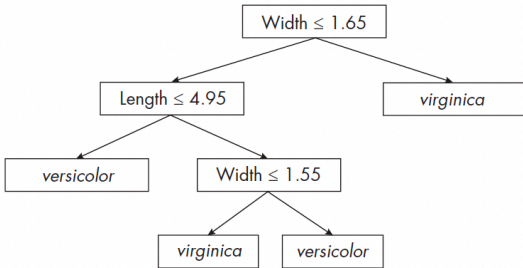
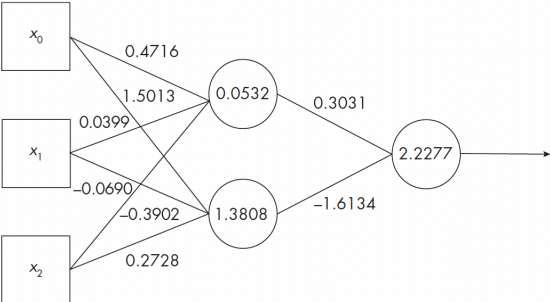
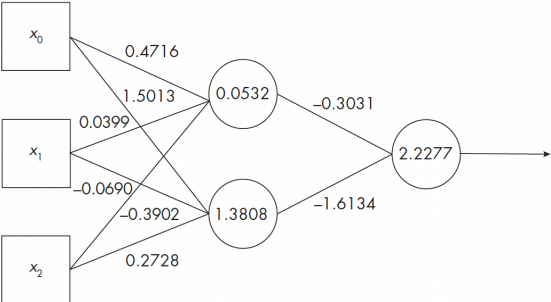


How AI Works

From Sorcery to Science

by Ronald T. Kneusel

Errata updated to print 2

Page	Error	Correction	Print corrected
14	 <p>The decision tree starts with the root node "Width ≤ 1.65". If true, it goes to "Length ≤ 4.95". If false, it goes to "versicolor". From "Length ≤ 4.95", if true, it goes to "virginica". If false, it goes to "Width ≤ 1.55". From "Width ≤ 1.55", if true, it goes to "versicolor". If false, it goes to "virginica".</p> <p>Figure 1-5: The decision tree for I. virginica versus I. versicolor</p>	 <p>The decision tree starts with the root node "Width ≤ 1.65". If true, it goes to "Length ≤ 4.95". If false, it goes to "virginica". From "Length ≤ 4.95", if true, it goes to "versicolor". If false, it goes to "Width ≤ 1.55". From "Width ≤ 1.55", if true, it goes to "virginica". If false, it goes to "versicolor".</p> <p>Figure 1-5: The decision tree for I. virginica versus I. versicolor</p>	Print 2
16	<p>In other words, the model returned a label of 9 for 917 of the 982 fours, a label of 1 for 48 fours, and labels of 1 or 3 for the rest.</p>	<p>In other words, the model returned a label of 9 for 917 of the 982 fours, a label of 0 for 48 fours, and labels of 1 or 3 for the rest.</p>	Print 2
48	<p>This calculation time grows as the square of the number of samples in the training set.</p>	<p>This calculation time grows linearly with the number of samples in the training set.</p>	Print 2
65	 <p>The diagram shows three input nodes x_0, x_1, and x_2 on the left. Two hidden nodes are in the middle: the top one has values 0.0532 and 1.3808, and the bottom one has values 1.3808 and -1.6134. The output node on the right has the value 2.2277. Weights are: x_0 to top hidden: 0.4716; x_0 to bottom hidden: -0.0690; x_1 to top hidden: 1.5013; x_1 to bottom hidden: -0.3902; x_2 to top hidden: 0.0399; x_2 to bottom hidden: 0.2728. Hidden to output: top hidden to output: 0.3031; bottom hidden to output: -1.6134.</p> <p>Figure 4-3: The two-neuron model trained on the wine dataset</p>	 <p>The diagram is identical to the error version, but the weight from the top hidden node to the output node is -0.3031 instead of 0.3031.</p> <p>Figure 4-3: The two-neuron model trained on the wine dataset</p>	Print 2