

One Fourth Labs

MP Neuron Loss

How do we compute the loss

1. Consider the previous example

	phone 1	phone 2	phone 3	phone 4	phone 5	phone 6	phone 7	phone 8	phone 9	phone 10
Launch (within 6 months) x_1	0	1	1	0	0	1	0	1	1	0
Weight (<160g) x_2	1	0	1	0	0	0	1	0	0	1
Screen Size (< 5.9in) x_3	1	0	1	0	1	0	1	0	1	0
Dual sim x_4	1	1	0	0	0	1	0	1	0	0
Internal mem(>= 64gb, 4gb ram) x_5	1	1	1	1	1	1	1	1	1	0
NFC x_6	0	1	1	0	1	0	1	1	1	0
Radio x_7	1	0	0	1	1	1	0	0	0	0
Battery (>= 3500mAh) x_8	0	0	0	1	0	1	0	1	0	0
Price? (> 20k) x_9	0	1	1	0	0	0	1	1	1	0
Liked (y)	1	0	1	0	1	1	0	1	0	0
Prediction \hat{y}	1	0	0	1	1	1	1	0	0	0
loss	0	0	1	-1	0	0	-1	1	0	0
Square error	0	0	1	1	0	0	1	1	0	0

2. Take the square of the difference to ignore the sign.
3. cost/loss = $\sum_i (y_i - \hat{y}_i)^2$