

PadhAI: 6 Jars of Sigmoid Neuron

One Fourth Labs

Sigmoid Data and Tasks

What kind of data and tasks can Sigmoid Neuron process

1. Here, the Sigmoid neuron can process data similar to the Perceptron, the difference being the output is real valued, from 0 to 1.
2. This allows us to perform regression: Where we predict y as a continuous value, being some function applied to x ,
3. $\hat{y} = f(x)$, where $f()$ is the sigmoid function in this case
4. Here is a sample, similar to perceptron except for real values output y .

	phone 1	phone 2	phone 3	phone 4	phone 5	phone 6	phone 7	phone 8	phone 9
Launch (within 6 months) x_1	0	1	1	0	0	1	0	1	1
Weight (g) x_2	151	180	160	205	162	182	138	185	170
Screen Size (< 5.9in) x_3	5.8	6.18	5.84	6.2	5.9	6.26	4.7	6.41	5.5
Dual sim x_4	1	1	0	0	0	1	0	1	0
Internal mem(>= 64gb, 4gb ram) x_5	1	1	1	1	1	1	1	1	1
NFC x_6	0	1	1	0	1	0	1	1	1
Radio x_7	1	0	0	1	1	1	0	0	0
Battery (mAh) x_8	3060	3500	3060	5000	3000	4000	1960	3700	3260
Price? (k) x_9	15k	32k	25k	18k	14k	12k	35k	42k	44k
Liked (y)	0.6	0.31	0.55	0.23	0.8	0.75	0.16	0.59	0.40