

One Fourth Labs

Perceptron Data and Task

What kind of data and tasks can Perceptron process

1. Perceptron can also take real inputs
- 2.

	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)	1	0	1	0	1	1	0	1	0

3. Apply feature scaling to standardize real input values $x' = (x - \min) / (\max - \min)$

Weight (g) x_2	0.19	0.63	0.33	1.00	0.36	0.66	0.00	0.70	0.48
Screen Size (< 5.9in) x_3	0.64	0.87	0.67	0.88	0.70	0.91	0.00	1.00	0.47
Battery (mAh) x_8	0.36	0.51	0.36	1.00	0.34	0.67	0.00	0.57	0.43
Price? (k) x_9	0.09	0.63	0.41	0.19	0.06	0.00	0.72	0.94	1.00