

One-vs-all

The basic idea is \rightarrow

Train a logistic regression classifier $h_{\theta}^{(i)}(x)$ for each class i to predict the probability that $y=i$

On a new ~~up~~ input x , to make a prediction, pick the class i that maximises

$\max_i h_{\theta}^{(i)}(x)$ ~~here~~ for example run all 3 classifiers on the input x , then pick class ~~at~~ i that maximises the 3.