Logistic Regression

Definition and Purpose

Logistic regression is a statistical model that in its basic form uses a logistic function to model a **binary dependent variable, there are therefore only two possible outcomes: 0 and 1**. The greater the probability value of a class for a sample, the greater the chances for that class to be an outcome of that sample.

$$l = \log_b \frac{p}{1-p} = \beta_0 + \beta_1 x_1 + \beta_2 x_2$$

$$\frac{p}{1-p} = b^{\beta_0 + \beta_1 x_1 + \beta_2 x_2}$$