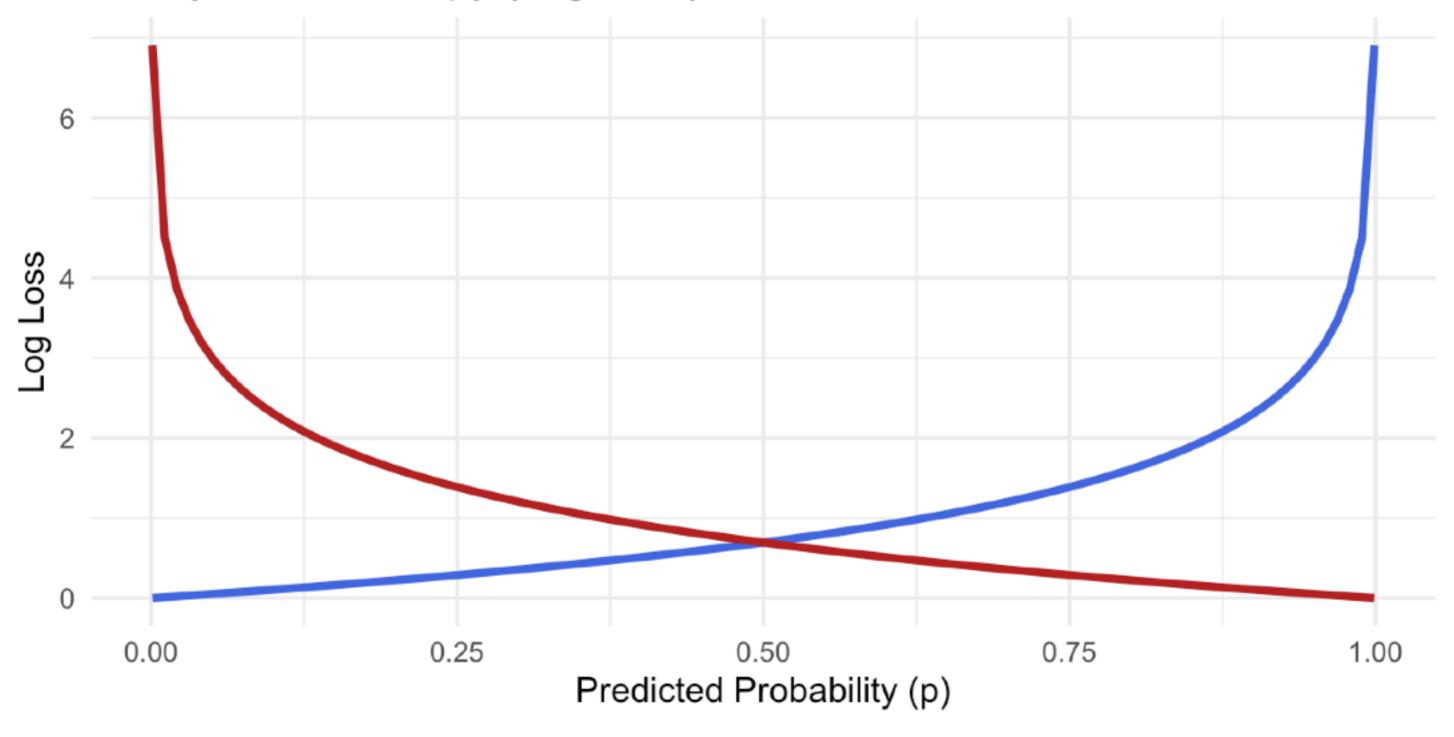
## Estimating Coefficients: MLE

 $\beta_{1} = -\frac{1}{n} \sum_{i=1}^{n} y_{i} \log(p(x_{i})) + (1 - y_{i}) \log(1 - p_{v_{i}})$ 

## Binary Cross-Entropy (Log Loss)



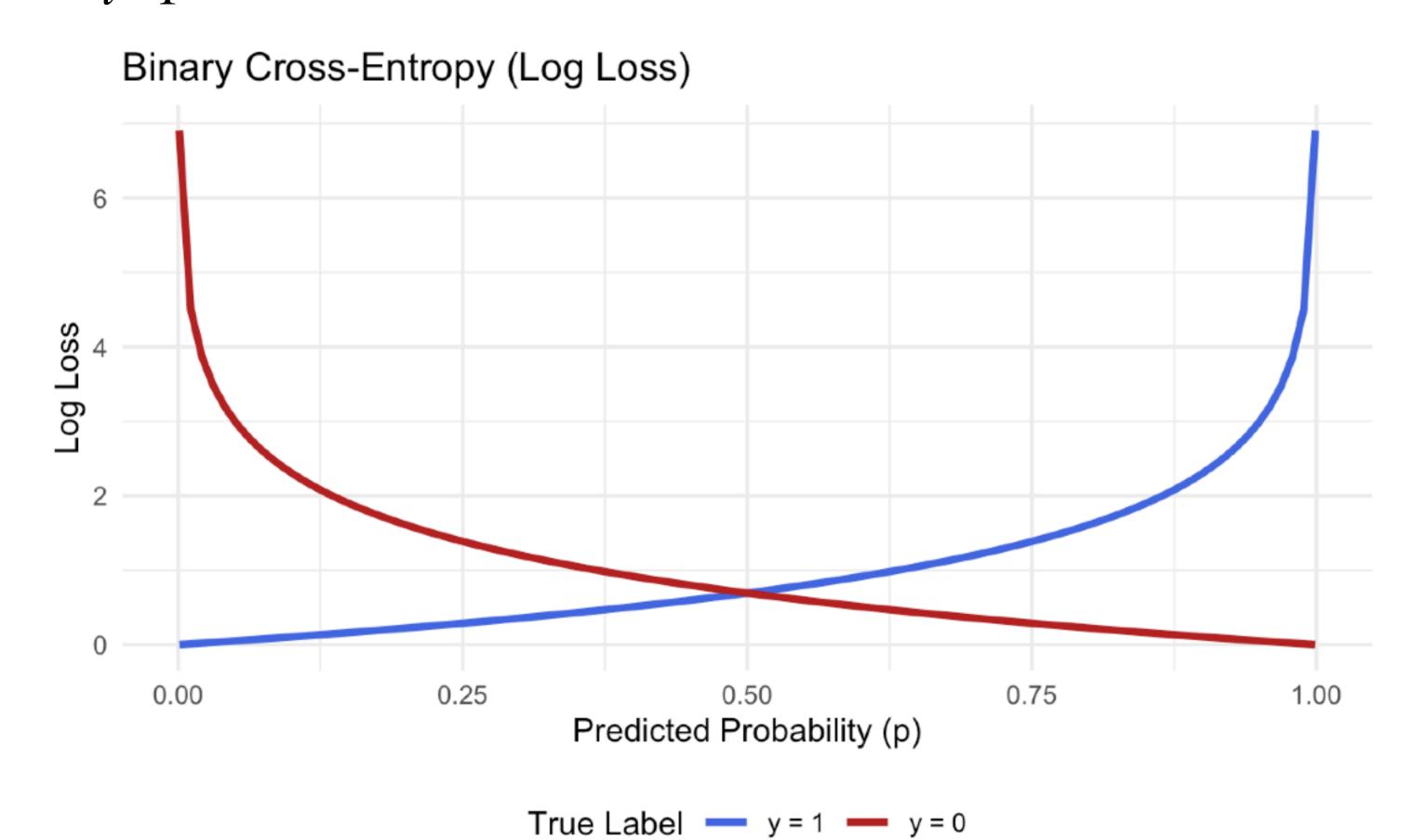
True Label 
$$-$$
 y = 1  $-$  y = 0



## Estimating Coefficients: MLE

$$l(\beta_0, \beta_1) = \frac{1}{n} \sum_{i=1}^{n} y_i \log(p(x_i)) + (1 - y_i) \log(1 - p(x_i))$$

Loss function



## Assessing Model Performance