

A.I. Cheatsheets Formula Base

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Abstract

This document contains loss equations.

1 Entropy

$$E(t) = \sum_{i=1}^M t_i \log\left(\frac{1}{t_i}\right)$$

2 Cross Entropy

$$L(p, t) = \sum_{i=1}^M t_i \log\left(\frac{1}{p_i}\right)$$

3 Binary Cross Entropy

$$L(p, t) = \sum_{i=0}^1 t_i \log\left(\frac{1}{p_i}\right) = t_0 \log\left(\frac{1}{p_0}\right) + t_1 \log\left(\frac{1}{p_1}\right)$$

where

$$t_1 = 1 - t_0$$