

## Module: tf.losses

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Defined in [tensorflow/python/ops/losses/losses.py](#).

Loss operations for use in neural networks.

★ **Note:** All the losses are added to the `GraphKeys.LOSSES` collection by default.

## Classes

[class Reduction](#) : Types of loss reduction.

## Functions

[absolute\\_difference\(...\)](#) : Adds an Absolute Difference loss to the training procedure.

[add\\_loss\(...\)](#) : Adds a externally defined loss to the collection of losses.

[compute\\_weighted\\_loss\(...\)](#) : Computes the weighted loss.

[cosine\\_distance\(...\)](#) : Adds a cosine-distance loss to the training procedure.

[get\\_losses\(...\)](#) : Gets the list of losses from the loss\_collection.

[get\\_regularization\\_loss\(...\)](#) : Gets the total regularization loss.

[get\\_regularization\\_losses\(...\)](#) : Gets the list of regularization losses.

[get\\_total\\_loss\(...\)](#) : Returns a tensor whose value represents the total loss.

[hinge\\_loss\(...\)](#) : Adds a hinge loss to the training procedure.

[huber\\_loss\(...\)](#) : Adds a Huber Loss term to the training procedure.

[log\\_loss\(...\)](#) : Adds a Log Loss term to the training procedure.

[mean\\_pairwise\\_squared\\_error\(...\)](#) : Adds a pairwise-errors-squared loss to the training procedure.

[mean\\_squared\\_error\(...\)](#) : Adds a Sum-of-Squares loss to the training procedure.

[sigmoid\\_cross\\_entropy\(...\)](#) : Creates a cross-entropy loss using `tf.nn.sigmoid_cross_entropy_with_logits`.

[softmax\\_cross\\_entropy\(...\)](#) : Creates a cross-entropy loss using `tf.nn.softmax_cross_entropy_with_logits`.

[sparse\\_softmax\\_cross\\_entropy\(...\)](#) : Cross-entropy loss using `tf.nn.sparse_softmax_cross_entropy_with_logits`.

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Last updated November 2, 2017.

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