


Module: tf.keras.losses

 TensorFlow 1 version (/versions/r1.15/api_docs/python/tf/keras/losses).

Built-in loss functions.

 [View aliases](#)

Main aliases

[tf.losses](https://www.tensorflow.org/api_docs/python/tf/keras/losses) (https://www.tensorflow.org/api_docs/python/tf/keras/losses)

Classes

[class BinaryCrossentropy](https://www.tensorflow.org/api_docs/python/tf/keras/losses/BinaryCrossentropy) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/BinaryCrossentropy): Computes the cross-entropy loss between true labels and predicted labels.

[class CategoricalCrossentropy](https://www.tensorflow.org/api_docs/python/tf/keras/losses/CategoricalCrossentropy) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/CategoricalCrossentropy): Computes the crossentropy loss between the labels and predictions.

[class CategoricalHinge](https://www.tensorflow.org/api_docs/python/tf/keras/losses/CategoricalHinge) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/CategoricalHinge): Computes the categorical hinge loss between `y_true` and `y_pred`.

[class CosineSimilarity](https://www.tensorflow.org/api_docs/python/tf/keras/losses/CosineSimilarity) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/CosineSimilarity): Computes the cosine similarity between labels and predictions.

[class Hinge](https://www.tensorflow.org/api_docs/python/tf/keras/losses/Hinge) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/Hinge): Computes the hinge loss between `y_true` and `y_pred`.

[class Huber](https://www.tensorflow.org/api_docs/python/tf/keras/losses/Huber) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/Huber): Computes the Huber loss between `y_true` and `y_pred`.

[class KLDivergence](https://www.tensorflow.org/api_docs/python/tf/keras/losses/KLDivergence) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/KLDivergence): Computes Kullback-Leibler divergence loss between `y_true` and `y_pred`.

[class LogCosh](https://www.tensorflow.org/api_docs/python/tf/keras/losses/LogCosh) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/LogCosh): Computes the logarithm of the hyperbolic cosine of the prediction error.

[class Loss](https://www.tensorflow.org/api_docs/python/tf/keras/losses/Loss) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/Loss): Loss base class.

class MeanAbsoluteError (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MeanAbsoluteError):

Computes the mean of absolute difference between labels and predictions.

class MeanAbsolutePercentageError

(https://www.tensorflow.org/api_docs/python/tf/keras/losses/MeanAbsolutePercentageError): Computes the mean absolute percentage error between `y_true` and `y_pred`.

class MeanSquaredError (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MeanSquaredError): Computes the mean of squares of errors between labels and predictions.

class MeanSquaredLogarithmicError

(https://www.tensorflow.org/api_docs/python/tf/keras/losses/MeanSquaredLogarithmicError): Computes the mean squared logarithmic error between `y_true` and `y_pred`.

class Poisson (https://www.tensorflow.org/api_docs/python/tf/keras/losses/Poisson): Computes the Poisson loss between `y_true` and `y_pred`.

class Reduction (https://www.tensorflow.org/api_docs/python/tf/keras/losses/Reduction): Types of loss reduction.

class SparseCategoricalCrossentropy

(https://www.tensorflow.org/api_docs/python/tf/keras/losses/SparseCategoricalCrossentropy): Computes the crossentropy loss between the labels and predictions.

class SquaredHinge (https://www.tensorflow.org/api_docs/python/tf/keras/losses/SquaredHinge): Computes the squared hinge loss between `y_true` and `y_pred`.

Functions

KLD(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/KLD): Computes Kullback-Leibler divergence loss between `y_true` and `y_pred`.

MAE(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MAE): Computes the mean absolute error between labels and predictions.

MAPE(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MAPE): Computes the mean absolute percentage error between `y_true` and `y_pred`.

MSE(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MSE): Computes the mean squared error between labels and predictions.

MSLE(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MSLE): Computes the mean squared logarithmic error between `y_true` and `y_pred`.

binary_crossentropy(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/binary_crossentropy): Computes the binary crossentropy loss.

categorical_crossentropy(...)

(https://www.tensorflow.org/api_docs/python/tf/keras/losses/categorical_crossentropy): Computes the categorical crossentropy loss.

categorical_hinge(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/categorical_hinge): Computes the categorical hinge loss between `y_true` and `y_pred`.

cosine_similarity(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/cosine_similarity): Computes the cosine similarity between labels and predictions.

deserialize(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/deserialize): Deserializes a serialized loss class/function instance.

get(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/get): Retrieves a Keras loss as a function/Loss class instance.

hinge(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/hinge): Computes the hinge loss between `y_true` and `y_pred`.

huber(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/huber): Computes Huber loss value.

k1_divergence(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/KLD): Computes Kullback-Leibler divergence loss between `y_true` and `y_pred`.

kld(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/KLD): Computes Kullback-Leibler divergence loss between `y_true` and `y_pred`.

kullback_leibler_divergence(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/KLD): Computes Kullback-Leibler divergence loss between `y_true` and `y_pred`.

log_cosh(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/log_cosh): Logarithm of the hyperbolic cosine of the prediction error.

logcosh(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/log_cosh): Logarithm of the hyperbolic cosine of the prediction error.

mae(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MAE): Computes the mean absolute error between labels and predictions.

mape(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MAPE): Computes the mean absolute percentage error between `y_true` and `y_pred`.

mean_absolute_error(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MAE): Computes the mean absolute error between labels and predictions.

mean_absolute_percentage_error(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MAPE): Computes the mean absolute percentage error between `y_true` and `y_pred`.

mean_squared_error(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MSE): Computes the mean squared error between labels and predictions.

mean_squared_logarithmic_error(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MSLE): Computes the mean squared logarithmic error between `y_true` and `y_pred`.

mse(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MSE): Computes the mean squared error between labels and predictions.

msle(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/MSLE): Computes the mean squared logarithmic error between **y_true** and **y_pred**.

poisson(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/poisson): Computes the Poisson loss between **y_true** and **y_pred**.

serialize(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/serialize): Serializes loss function or Loss instance.

sparse_categorical_crossentropy(...)

(https://www.tensorflow.org/api_docs/python/tf/keras/losses/sparse_categorical_crossentropy): Computes the sparse categorical crossentropy loss.

squared_hinge(...) (https://www.tensorflow.org/api_docs/python/tf/keras/losses/squared_hinge): Computes the squared hinge loss between **y_true** and **y_pred**.

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