


Module: tf.keras.metrics

✓ See Stable

See Nightly

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

Built-in metrics.

+ View aliases

Main aliases

tf.metrics (https://www.tensorflow.org/api_docs/python/tf/keras/metrics)

Classes

class AUC (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/AUC): Approximates the AUC (Area under the curve) of the ROC or PR curves.

class Accuracy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/Accuracy): Calculates how often predictions equal labels.

class BinaryAccuracy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/BinaryAccuracy): Calculates how often predictions match binary labels.

class BinaryCrossentropy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/BinaryCrossentropy): Computes the crossentropy metric between the labels and predictions.

class CategoricalAccuracy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/CategoricalAccuracy): Calculates how often predictions match one-hot labels.

class CategoricalCrossentropy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/CategoricalCrossentropy): Computes the crossentropy metric between the labels and predictions.

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

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

class FalseNegatives (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/FalseNegatives): Calculates the number of false negatives.

class FalsePositives (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/FalsePositives): Calculates the number of false positives.

class Hinge (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/Hinge): Computes the hinge metric between `y_true` and `y_pred`.

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

class LogCoshError (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/LogCoshError): Computes the logarithm of the hyperbolic cosine of the prediction error.

class Mean (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/Mean): Computes the (weighted) mean of the given values.

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

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

class MeanIoU (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/MeanIoU): Computes the mean Intersection-Over-Union metric.

class MeanRelativeError (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/MeanRelativeError): Computes the mean relative error by normalizing with the given values.

class MeanSquaredError (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/MeanSquaredError): Computes the mean squared error between `y_true` and `y_pred`.

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

class MeanTensor (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/MeanTensor): Computes the element-wise (weighted) mean of the given tensors.

class Metric (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/Metric): Encapsulates metric logic and state.

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

class Precision (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/Precision): Computes the precision of the predictions with respect to the labels.

class PrecisionAtRecall (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/PrecisionAtRecall): Computes best precision where recall is \geq specified value.

class Recall (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/Recall): Computes the recall of the predictions with respect to the labels.

class RecallAtPrecision (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/RecallAtPrecision): Computes best recall where precision is \geq specified value.

class RootMeanSquaredError (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/RootMeanSquaredError): Computes root mean squared error metric between `y_true` and `y_pred`.

class SensitivityAtSpecificity (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/SensitivityAtSpecificity): Computes best sensitivity where specificity is \geq specified value.

class SparseCategoricalAccuracy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/SparseCategoricalAccuracy): Calculates how often predictions match integer labels.

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

class SparseTopKCategoricalAccuracy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/SparseTopKCategoricalAccuracy): Computes how often integer targets are in the top K predictions.

class SpecificityAtSensitivity (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/SpecificityAtSensitivity): Computes best specificity where sensitivity is \geq specified value.

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

class Sum (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/Sum): Computes the (weighted) sum of the given values.

class TopKCategoricalAccuracy (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/TopKCategoricalAccuracy): Computes how often targets are in the top K predictions.

class TrueNegatives (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/TrueNegatives): Calculates the number of true negatives.

class TruePositives (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/TruePositives): Calculates the number of true positives.

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_accuracy(...) (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/binary_accuracy): Calculates how often predictions match binary labels.

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

categorical_accuracy(...) (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/categorical_accuracy): Calculates how often predictions match one-hot labels.

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

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

get(...) (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/get): Retrieves a Keras metric as a `function`/`Metric` class instance.

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

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/metrics/serialize): Serializes metric function or Metric instance.

sparse_categorical_accuracy(...) (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/sparse_categorical_accuracy): Calculates how often predictions match integer labels.

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

sparse_top_k_categorical_accuracy(...) (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/sparse_top_k_categorical_accuracy): Computes how often integer targets are in the top K predictions.

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`.

top_k_categorical_accuracy(...) (https://www.tensorflow.org/api_docs/python/tf/keras/metrics/top_k_categorical_accuracy): Computes how often targets are in the top K predictions.

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(<https://creativecommons.org/licenses/by/4.0/>), and code samples are licensed under the [Apache 2.0 License](https://www.apache.org/licenses/LICENSE-2.0)

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