

tf.metrics.mean_absolute_error

```
mean_absolute_error(  
    labels,  
    predictions,  
    weights=None,  
    metrics_collections=None,  
    updates_collections=None,  
    name=None  
)
```

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

Computes the mean absolute error between the labels and predictions.

The `mean_absolute_error` function creates two local variables, `total` and `count` that are used to compute the mean absolute error. This average is weighted by `weights`, and it is ultimately returned as `mean_absolute_error`: an idempotent operation that simply divides `total` by `count`.

For estimation of the metric over a stream of data, the function creates an `update_op` operation that updates these variables and returns the `mean_absolute_error`. Internally, an `absolute_errors` operation computes the absolute value of the differences between `predictions` and `labels`. Then `update_op` increments `total` with the reduced sum of the product of `weights` and `absolute_errors`, and it increments `count` with the reduced sum of `weights`.

If `weights` is `None`, weights default to 1. Use weights of 0 to mask values.

Args:

- `labels`: A `Tensor` of the same shape as `predictions`.
- `predictions`: A `Tensor` of arbitrary shape.
- `weights`: Optional `Tensor` whose rank is either 0, or the same rank as `labels`, and must be broadcastable to `labels` (i.e., all dimensions must be either 1, or the same as the corresponding `labels` dimension).
- `metrics_collections`: An optional list of collections that `mean_absolute_error` should be added to.
- `updates_collections`: An optional list of collections that `update_op` should be added to.
- `name`: An optional variable_scope name.

Returns:

- `mean_absolute_error`: A `Tensor` representing the current mean, the value of `total` divided by `count`.
- `update_op`: An operation that increments the `total` and `count` variables appropriately and whose value matches `mean_absolute_error`.

Raises:

- `ValueError`: If `predictions` and `labels` have mismatched shapes, or if `weights` is not `None` and its shape doesn't match `predictions`, or if either `metrics_collections` or `updates_collections` are not a list or tuple.

Except as otherwise noted, the content of this page is licensed under the [Creative Commons Attribution 3.0 License](#), and code samples are licensed under the [Apache 2.0 License](#). For details, see our [Site Policies](#). Java is a registered trademark of Oracle and/or its affiliates.

Last updated November 2, 2017.

Stay Connected

[Blog](#)

[GitHub](#)

[Twitter](#)

Support

[Issue Tracker](#)

[Release Notes](#)

[Stack Overflow](#)

English

[Terms](#) | [Privacy](#)