

tf.contrib.metrics.streaming_mean_cosine_distance

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

Defined in [tensorflow/contrib/metrics/python/ops/metric_ops.py](#).

See the guide: [Metrics \(contrib\)](#) > [Metric Ops](#)

Computes the cosine distance between the labels and predictions.

The `streaming_mean_cosine_distance` function creates two local variables, `total` and `count` that are used to compute the average cosine distance between `predictions` and `labels`. This average is weighted by `weights`, and it is ultimately returned as `mean_distance`, which is 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_distance`.

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

Args:

- `predictions`: A `Tensor` of the same shape as `labels`.
- `labels`: A `Tensor` of arbitrary shape.
- `dim`: The dimension along which the cosine distance is computed.
- `weights`: An optional `Tensor` whose shape is broadcastable to `predictions`, and whose dimension `dim` is 1.
- `metrics_collections`: An optional list of collections that the metric value variable should be added to.
- `updates_collections`: An optional list of collections that the metric update ops should be added to.
- `name`: An optional variable_scope name.

Returns:

- `mean_distance`: 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.

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](#)