

tf.contrib.losses.cosine_distance

```
cosine_distance(  
    predictions,  
    labels=None,  
    dim=None,  
    weights=1.0,  
    scope=None  
)
```

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

See the guide: [Losses \(contrib\)](#) > [Loss operations for use in neural networks](#).

Adds a cosine-distance loss to the training procedure. (deprecated)

THIS FUNCTION IS DEPRECATED. It will be removed after 2016-12-30. Instructions for updating: Use `tf.losses.cosine_distance` instead.

Note that the function assumes that `predictions` and `labels` are already unit-normalized.

Args:

- `predictions`: An arbitrary matrix.
- `labels`: A `Tensor` whose shape matches 'predictions'
- `dim`: The dimension along which the cosine distance is computed.
- `weights`: Coefficients for the loss a scalar, a tensor of shape `[batch_size]` or a tensor whose shape matches `predictions`.
- `scope`: The scope for the operations performed in computing the loss.

Returns:

A scalar `Tensor` representing the loss value.

Raises:

- `ValueError`: If `predictions` shape doesn't match `labels` shape, or `weights` is `None`.

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