tf.contrib.losses.mean_pairwise_squared_error

```
mean_pairwise_squared_error(
    predictions,
    labels=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 pairwise-errors-squared loss to the training procedure. (deprecated)

THIS FUNCTION IS DEPRECATED. It will be removed after 2016-12-30. Instructions for updating: Use tf.losses.mean_pairwise_squared_error instead. Note that the order of the predictions and labels arguments has been changed.

Unlike `mean_squared_error`, which is a measure of the differences between corresponding elements of `predictions` and `labels`, `mean_pairwise_squared_error` is a measure of the differences between pairs of corresponding elements of `predictions` and `labels`.

For example, if `labels` =[a, b, c] and `predictions` =[x, y, z], there are three pairs of differences are summed to compute the loss: loss = [((a-b) - (x-y)).^2 + ((a-c) - (x-z)).^2 + ((b-c) - (y-z)).^2] / 3

Note that since the inputs are of size [batch_size, d0, ... dN], the corresponding pairs are computed within each batch sample but not across samples within a batch. For example, if `predictions` represents a batch of 16 grayscale images of dimension [batch_size, 100, 200], then the set of pairs is drawn from each image, but not across images.

`weights` acts as a coefficient for the loss. If a scalar is provided, then the loss is simply scaled by the given value. If `weights` is a tensor of size [batch_size], then the total loss for each sample of the batch is rescaled by the corresponding element in the `weights` vector.

Args:

- `predictions` : The predicted outputs, a tensor of size [batch_size, d0, .. dN] where N+1 is the total number of dimensions in `predictions`.
- `labels` : The ground truth output tensor, whose shape must match the shape of the `predictions` tensor.
- `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 the shape of `predictions` doesn't match that of `labels` or if the shape of `weights` is invalid.

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