tf.contrib.metrics.streaming_recall_at_k

```
streaming_recall_at_k(
    predictions,
    labels,
    k,
    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 recall@k of the predictions with respect to dense labels. (deprecated)

THIS FUNCTION IS DEPRECATED. It will be removed after 2016-11-08. Instructions for updating: Please use `streaming_sparse_recall_at_k` , and reshape labels from [batch_size] to [batch_size, 1].

The `streaming_recall_at_k` function creates two local variables, `total` and `count` , that are used to compute the recall@k frequency. This frequency is ultimately returned as `recall_at_<k>` : 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 `recall_at_<k>` . Internally, an `in_top_k` operation computes a `Tensor` with shape [batch_size] whose elements indicate whether or not the corresponding label is in the top `k` `predictions` . Then `update_op` increments `total` with the reduced sum of `weights` where `in_top_k` is `True` , 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:

- `predictions` : A float `Tensor` of dimension [batch_size, num_classes].
- `labels` : A `Tensor` of dimension [batch_size] whose type is in `int32` , `int64` .
- `k` : The number of top elements to look at for computing recall.
- `weights` : `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 `recall_at_k` should be added to.
- `updates_collections` : An optional list of collections `update_op` should be added to.
- `name` : An optional variable_scope name.

Returns:

- `recall_at_k` : A `Tensor` representing the recall@k, the fraction of labels which fall into the top `k` predictions.
- `update_op` : An operation that increments the `total` and `count` variables appropriately and whose value matches `recall_at_k` .

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.

Last updated November 2, 2017.

Stay Connected

Blog

GitHub

Twitter

Support

Issue Tracker

Release Notes

Stack Overflow

English

Terms | Privacy