tf.contrib.metrics.streaming_specificity_at_sensitivity

```
streaming_specificity_at_sensitivity(
    predictions,
    labels,
    sensitivity,
    weights=None,
    num_thresholds=200,
    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 specificity at a given sensitivity.

The `streaming_specificity_at_sensitivity` function creates four local variables, `true_positives`, `true_negatives`, `false_positives` and `false_negatives` that are used to compute the specificity at the given sensitivity value. The threshold for the given sensitivity value is computed and used to evaluate the corresponding specificity.

For estimation of the metric over a stream of data, the function creates an `update_op` operation that updates these variables and returns the `specificity`. `update_op` increments the `true_positives`, `true_negatives`, `false_positives` and `false_negatives` counts with the weight of each case found in the `predictions` and `labels`.

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

For additional information about specificity and sensitivity, see the following:
https://en.wikipedia.org/wiki/Sensitivity_and_specificity

Args:

- `predictions`: A floating point `Tensor` of arbitrary shape and whose values are in the range `[0, 1]`.
- `labels`: A `bool` `Tensor` whose shape matches `predictions`.
- `sensitivity`: A scalar value in range `[0, 1]`.
- `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).
- `num_thresholds`: The number of thresholds to use for matching the given sensitivity.
- `metrics_collections`: An optional list of collections that `specificity` 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:

- `specificity`: A scalar `Tensor` representing the specificity at the given `specificity` value.
- `update_op`: An operation that increments the `true_positives`, `true_negatives`, `false_positives` and

`false_negatives` variables appropriately and whose value matches `specificity`.

Raises:

- `ValueError`: If `predictions` and `labels` have mismatched shapes, if `weights` is not `None` and its shape doesn't match `predictions`, or if `sensitivity` is not between 0 and 1, or if either `metrics_collections` or `updates_collections` are not a list or tuple.

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