

tf.contrib.metrics.streaming_accuracy

```
streaming_accuracy(  
    predictions,  
    labels,  
    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](#)

Calculates how often **predictions** matches **labels**.

The **streaming_accuracy** function creates two local variables, **total** and **count** that are used to compute the frequency with which **predictions** matches **labels**. This frequency is ultimately returned as **accuracy**: 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 **accuracy**. Internally, an **is_correct** operation computes a **Tensor** with elements 1.0 where the corresponding elements of **predictions** and **labels** match and 0.0 otherwise. Then **update_op** increments **total** with the reduced sum of the product of **weights** and **is_correct**, 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**: The predicted values, a **Tensor** of any shape.
- **labels**: The ground truth values, a **Tensor** whose shape matches **predictions**.
- **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 **accuracy** 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:

- **accuracy**: A **Tensor** representing the accuracy, the value of **total** divided by **count**.
- **update_op**: An operation that increments the **total** and **count** variables appropriately and whose value matches **accuracy**.

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.

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