

tf.nn.in_top_k

```
in_top_k(
    predictions,
    targets,
    k,
    name=None
)
```

Defined in [tensorflow/python/ops/nn_ops.py](#).

See the guide: [Neural Network > Evaluation](#)

Says whether the targets are in the top **K** predictions.

This outputs a **batch_size** bool array, an entry **out[i]** is **true** if the prediction for the target class is among the top **k** predictions among all predictions for example **i**. Note that the behavior of **InTopK** differs from the **TopK** op in its handling of ties; if multiple classes have the same prediction value and straddle the top-**k** boundary, all of those classes are considered to be in the top **k**.

More formally, let

$predictions_i$ be the predictions for all classes for example **i**, $targets_i$ be the target class for example **i**, out_i be the output for example **i**,

$$out_i = predictions_{i, targets_i} \in TopKIncludingTies(predictions_i)$$

Args:

- predictions**: A **Tensor** of type **float32**. A **batch_size** x **classes** tensor.
- targets**: A **Tensor**. Must be one of the following types: **int32**, **int64**. A **batch_size** vector of class ids.
- k**: An **int**. Number of top elements to look at for computing precision.
- name**: A name for the operation (optional).

Returns:

A **Tensor** of type **bool**. Computed Precision at **k** as a **bool Tensor**.

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