TencorFlow

TensorFlow API r1.4

tf.dynamic\_stitch

```
dynamic_stitch(
   indices,
   data,
   name=None
)
```

Defined in tensorflow/python/ops/gen\_data\_flow\_ops.py.

See the guide: Tensor Transformations > Slicing and Joining

Interleave the values from the data tensors into a single tensor.

Builds a merged tensor such that

```
merged[indices[m][i, ..., j], ...] = data[m][i, ..., j, ...]
```

For example, if each indices[m] is scalar or vector, we have

```
# Scalar indices:
merged[indices[m], ...] = data[m][...]

# Vector indices:
merged[indices[m][i], ...] = data[m][i, ...]
```

Each data[i].shape must start with the corresponding indices[i].shape, and the rest of data[i].shape must be constant w.r.t. i. That is, we must have data[i].shape = indices[i].shape + constant. In terms of this constant, the output shape is

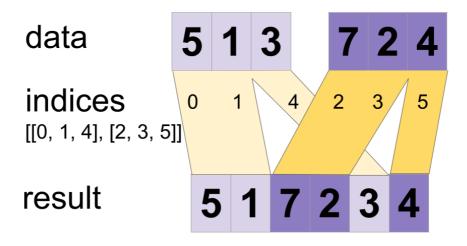
```
merged.shape = [max(indices)] + constant
```

Values are merged in order, so if an index appears in both indices[m][i] and indices[n][j] for (m,i) < (n,j) the slice data[n][j] will appear in the merged result. If you do not need this guarantee, ParallelDynamicStitch might perform better on some devices.

For example:

This method can be used to merge partitions created by dynamic\_partition as illustrated on the following example:

```
# Apply function (increments x_i) on elements for which a certain condition
# apply (x_i != -1 in this example).
x=tf.constant([0.1, -1., 5.2, 4.3, -1., 7.4])
condition_mask=tf.not_equal(x,tf.constant(-1.))
partitioned_data = tf.dynamic_partition(
    x, tf.cast(condition_mask, tf.int32) , 2)
partitioned_data[1] = partitioned_data[1] + 1.0
condition_indices = tf.dynamic_partition(
    tf.range(tf.shape(x)[0]), tf.cast(condition_mask, tf.int32) , 2)
x = tf.dynamic_stitch(condition_indices, partitioned_data)
# Here x=[1.1, -1., 6.2, 5.3, -1, 8.4], the -1. values remain
# unchanged.
```



## Args:

- indices: A list of at least 1 Tensor objects with type int32.
- data: A list with the same length as indices of Tensor objects with the same type.
- name: A name for the operation (optional).

## Returns:

A Tensor. Has the same type as data.

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Last updated November 2, 2017.

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