

tf.contrib.data.dense_to_sparse_batch

```
dense_to_sparse_batch(  
    batch_size,  
    row_shape  
)
```

Defined in [tensorflow/contrib/data/python/ops/batching.py](#).

A transformation that batches ragged elements into `tf.SparseTensor`s.

Like `Dataset.padded_batch()`, this transformation combines multiple consecutive elements of the dataset, which might have different shapes, into a single element. The resulting element has three components (`indices`, `values`, and `dense_shape`), which comprise a `tf.SparseTensor` that represents the same data. The `row_shape` represents the dense shape of each row in the resulting `tf.SparseTensor`, to which the effective batch size is prepended. For example:

```
# NOTE: The following examples use `{ ... }` to represent the  
# contents of a dataset.  
a = { ['a', 'b', 'c'], ['a', 'b'], ['a', 'b', 'c', 'd'] }  
  
a.apply(tf.contrib.data.dense_to_sparse_batch(batch_size=2, row_shape=[6])) ==  
{  
    ([[0, 0], [0, 1], [0, 2], [1, 0], [1, 1]], # indices  
     ['a', 'b', 'c', 'a', 'b'],              # values  
     [2, 6]),                                # dense_shape  
    ([[0, 0], [0, 1], [0, 2], [0, 3]],  
     ['a', 'b', 'c', 'd'],  
     [1, 6])  
}
```

Args:

- `batch_size`: A `tf.int64` scalar `tf.Tensor`, representing the number of consecutive elements of this dataset to combine in a single batch.
- `row_shape`: A `tf.TensorShape` or `tf.int64` vector tensor-like object representing the equivalent dense shape of a row in the resulting `tf.SparseTensor`. Each element of this dataset must have the same rank as `row_shape`, and must have size less than or equal to `row_shape` in each dimension.

Returns:

A `Dataset` transformation function, which can be passed to [tf.data.Dataset.apply](#).

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