

tf.matrix_transpose

Contents

Aliases:

Aliases:

- `tf.linalg.transpose`
- `tf.matrix_transpose`

```
matrix_transpose(  
    a,  
    name='matrix_transpose'  
)
```

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

See the guide: [Math > Matrix Math Functions](#)

Transposes last two dimensions of tensor `a`.

For example:

```
x = tf.constant([[1, 2, 3], [4, 5, 6]])  
tf.matrix_transpose(x) # [[1, 4],  
                        # [2, 5],  
                        # [3, 6]]  
  
# Matrix with two batch dimensions.  
# x.shape is [1, 2, 3, 4]  
# tf.matrix_transpose(x) is shape [1, 2, 4, 3]
```

Note that `tf.matmul` provides kwargs allowing for transpose of arguments. This is done with minimal cost, and is preferable to using this function. E.g.

```
# Good! Transpose is taken at minimal additional cost.  
tf.matmul(matrix, b, transpose_b=True)  
  
# Inefficient!  
tf.matmul(matrix, tf.matrix_transpose(b))
```

Args:

- `a`: A `Tensor` with `rank >= 2`.
- `name`: A name for the operation (optional).

Returns:

A transposed batch matrix `Tensor`.

Raises:

- `ValueError` : If `a` is determined statically to have `rank < 2` .

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