tf.eye

Aliases:

- `tf.eye`
- `tf.linalg.eye`

```
eye(
    num_rows,
    num_columns=None,
    batch_shape=None,
    dtype=tf.float32,
    name=None
)
```

Defined in `tensorflow/python/ops/linalg_ops.py`.

See the guide: Math > Matrix Math Functions

Construct an identity matrix, or a batch of matrices.

```
# Construct one identity matrix.
tf.eye(2)
==> [[1., 0.],
     [0., 1.]]

# Construct a batch of 3 identity matricies, each 2 x 2.
# batch_identity[i, :, :] is a 2 x 2 identity matrix, i = 0, 1, 2.
batch_identity = tf.eye(2, batch_shape=[3])

# Construct one 2 x 3 "identity" matrix
tf.eye(2, num_columns=3)
==> [[ 1.,  0.,  0.],
     [ 0.,  1.,  0.]]
```

Args:

- `num_rows`: Non-negative `int32` scalar `Tensor` giving the number of rows in each batch matrix.
- `num_columns`: Optional non-negative `int32` scalar `Tensor` giving the number of columns in each batch matrix. Defaults to `num_rows`.
- `batch_shape`: A list or tuple of Python integers or a 1-D `int32` `Tensor`. If provided, the returned `Tensor` will have leading batch dimensions of this shape.
- `dtype`: The type of an element in the resulting `Tensor`
- `name`: A name for this `Op`. Defaults to "eye".

Returns:

A `Tensor` of shape `batch_shape + [num_rows, num_columns]`

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