

tf.contrib.layers.unit_norm

```
unit_norm(  
    inputs,  
    dim,  
    epsilon=1e-07,  
    scope=None  
)
```

Defined in [tensorflow/contrib/layers/python/layers/layers.py](#).

See the guide: [Layers \(contrib\) > Higher level ops for building neural network layers](#)

Normalizes the given input across the specified dimension to unit length.

Note that the rank of `input` must be known.

Args:

- `inputs`: A `Tensor` of arbitrary size.
- `dim`: The dimension along which the input is normalized.
- `epsilon`: A small value to add to the inputs to avoid dividing by zero.
- `scope`: Optional scope for variable_scope.

Returns:

The normalized `Tensor`.

Raises:

- `ValueError`: If `dim` is smaller than the number of dimensions in 'inputs'.

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