

## tf.contrib.layers.stack

```
stack(  
    inputs,  
    layer,  
    stack_args,  
    **kwargs  
)
```

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

Builds a stack of layers by applying layer repeatedly using stack\_args.

**stack** allows you to repeatedly apply the same operation with different arguments **stack\_args[i]**. For each application of the layer, **stack** creates a new scope appended with an increasing number. For example:

```
y = stack(x, fully_connected, [32, 64, 128], scope='fc')  
# It is equivalent to:  
  
x = fully_connected(x, 32, scope='fc/fc_1')  
x = fully_connected(x, 64, scope='fc/fc_2')  
y = fully_connected(x, 128, scope='fc/fc_3')
```

If the **scope** argument is not given in **kwargs**, it is set to **layer.\_\_name\_\_**, or **layer.func.\_\_name\_\_** (for **functools.partial** objects). If neither **\_\_name\_\_** nor **func.\_\_name\_\_** is available, the layers are called with **scope='stack'**.

## Args:

- **inputs**: A **Tensor** suitable for layer.
- **layer**: A layer with arguments (**inputs**, **\*args**, **\*\*kwargs**)
- **stack\_args**: A list/tuple of parameters for each call of layer.
- **\*\*kwargs**: Extra kwargs for the layer.

## Returns:

A **Tensor** result of applying the stacked layers.

## Raises:

- **ValueError**: If the op is unknown or wrong.

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