

## tf.layers.average\_pooling3d

```
average_pooling3d(  
    inputs,  
    pool_size,  
    strides,  
    padding='valid',  
    data_format='channels_last',  
    name=None  
)
```

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

Average pooling layer for 3D inputs (e.g. volumes).

## Arguments:

- **inputs** : The tensor over which to pool. Must have rank 5.
- **pool\_size** : An integer or tuple/list of 3 integers: (pool\_depth, pool\_height, pool\_width) specifying the size of the pooling window. Can be a single integer to specify the same value for all spatial dimensions.
- **strides** : An integer or tuple/list of 3 integers, specifying the strides of the pooling operation. Can be a single integer to specify the same value for all spatial dimensions.
- **padding** : A string. The padding method, either 'valid' or 'same'. Case-insensitive.
- **data\_format** : A string. The ordering of the dimensions in the inputs. **channels\_last** (default) and **channels\_first** are supported. **channels\_last** corresponds to inputs with shape (batch, depth, height, width, channels) while **channels\_first** corresponds to inputs with shape (batch, channels, depth, height, width).
- **name** : A string, the name of the layer.

## Returns:

Output tensor.

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