

tf.contrib.layers.max_pool3d

```
max_pool3d(  
    inputs,  
    kernel_size,  
    stride=2,  
    padding='VALID',  
    data_format=DATA_FORMAT_NDHW,  
    outputs_collections=None,  
    scope=None  
)
```

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

Adds a 3D Max Pooling op.

It is assumed that the pooling is done per image but not in batch or channels.

Args:

- `inputs`: A 5-D tensor of shape `[batch_size, depth, height, width, channels]` if `data_format` is `NDHWC`, and `[batch_size, channels, depth, height, width]` if `data_format` is `NCDHW`.
- `kernel_size`: A list of length 3: `[kernel_depth, kernel_height, kernel_width]` of the pooling kernel over which the op is computed. Can be an int if both values are the same.
- `stride`: A list of length 3: `[stride_depth, stride_height, stride_width]`. Can be an int if both strides are the same. Note that presently both strides must have the same value.
- `padding`: The padding method, either 'VALID' or 'SAME'.
- `data_format`: A string. `NDHWC` (default) and `NCDHW` are supported.
- `outputs_collections`: The collections to which the outputs are added.
- `scope`: Optional scope for name_scope.

Returns:

A `Tensor` representing the results of the pooling operation.

Raises:

- `ValueError`: If `data_format` is neither `NDHWC` nor `NCDHW`.
- `ValueError`: If 'kernel_size' is not a 3-D list

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