

```
pooling = tf.nn.max_pool(a, [1,2,2,1],  
                        [1,1,1,1], padding='VALID')
```

**TensorFlow  
API**



```
GPU_1D_KERNEL_LOOP(index, nthreads) {
```

```
... ..
```

```
for (int h = hstart; h < hend; ++h) {  
  for (int w = wstart; w < wend; ++w) {  
    int idx = c * height * width + h * width + w;  
    if (IsGreaterThan<propagate_nans>(  
      bottom_data_n[idx], maxval)) {  
      maxidx = include_batch_in_index ? idx + offset : idx;  
      maxval = bottom_data_n[idx];  
    }  
  }  
}
```

**CUDA Code**



**VGTM ( . . . )**

**Tensor Instruction**

```
... ..
```