

CVE-2020-5212

Impact

Converting a string (from Python) to a *tf.float16* value results in a segmentation fault in eager mode as the format checks for this use case are only in the graph mode.

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This can be easily reproduced by *tf.constant("hello", tf.float16)*, if eager execution is enabled.

Fixing commit: 5ac1b9e24ff6afc465756edf845d2e9660bd34bf

Test File: tensorflow/python/framework/constant_op_test.py

```
from tensorflow.python.framework import constant_op
```

```
class ConstantOpTest(test.TestCase, parameterized.TestCase):
```

```
    def test_convert_string_to_number(self, dtype):
```

```
        with self.assertRaises(TypeError):
```

```
            constant_op.constant("hello", dtype)
```