

# Segfault in tf.raw\_ops.ImmutableConst

Low mihairmaruseac published GHSA-g4h2-gqm3-c9wq on May 12, 2021

Package

tensorflow, tensorflow-cpu, tensorflow-gpu (pip)

Affected versions

< 2.5.0

Patched versions

2.1.4, 2.2.3, 2.3.3, 2.4.2

Description

Impact

Calling `tf.raw_ops.ImmutableConst` with a `dtype` of `tf.resource` or `tf.variant` results in a segfault in the implementation as code assumes that the tensor contents are pure scalars.

```
>>> import tensorflow as tf
>>> tf.raw_ops.ImmutableConst(dtype=tf.resource, shape=[], memory_region_name="/tmp/test.txt")
...
Segmentation fault
```

Patches

We have patched the issue in [4f663d4](#) and will release TensorFlow 2.5.0 containing the patch. TensorFlow nightly packages after this commit will also have the issue resolved.

Workarounds

If using `tf.raw_ops.ImmutableConst` in code, you can prevent the segfault by inserting a filter for the `dtype` argument.

For more information

Please consult [our security guide](#) for more information regarding the security model and how to contact us with issues and questions.

Severity  
Low

CVE ID  
CVE-2021-29539

Weaknesses  
No CWEs