

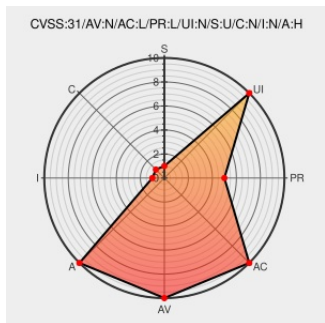


CVE-2022-21741

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CVE-2022-21741 - advisory for GHSA-428x-9xc2-m8mj

[Source: Mitre](#)[Source: NIST](#)[CVE.ORG](#)[Print: PDF](#) 

Certain versions of [Tensorflow](#) from [Google](#) contain the following vulnerability:

Tensorflow is an Open Source Machine Learning Framework. **### Impact** An attacker can craft a TFLite model that would trigger a division by zero in the implementation of depthwise convolutions. The parameters of the convolution can be user controlled and are also used within a division operation to determine the size of the padding that needs to be added before applying the convolution. There is no check before this division that the divisor is strictly positive. The fix will be included in TensorFlow 2.8.0. We will also cherry-pick this commit on TensorFlow 2.7.1, TensorFlow 2.6.3, and TensorFlow 2.5.3, as these are also affected and still in supported range.

CVE-2022-21741 has been assigned by security-advisories@github.com to track the vulnerability - currently rated as **MEDIUM** severity.

CVSS3 Score: **6.5 - MEDIUM**

Attack Vector	Attack Complexity	Privileges Required	User Interaction
NETWORK	LOW	LOW	NONE
Scope	Confidentiality Impact	Integrity Impact	Availability Impact
UNCHANGED	NONE	NONE	HIGH

CVSS2 Score: **5 - MEDIUM**

Access Vector	Access Complexity	Authentication
NETWORK	LOW	NONE
Confidentiality Impact	Integrity Impact	Availability Impact
NONE	NONE	PARTIAL

CVE References

Description	Tags	Link
tensorflow/depthwise_conv.cc at 5100e359aef5c8021f2e71c7b986420b85ce7b3d · tensorflow/tensorflow · GitHub	github.com text/html	MISC github.com/tensorflow/tensorflow/blob/5100e359aef5c8021f2e71c7b986420b85ce7b3d/tensorflow/tensorflow/depthwise_conv.cc
FPE in depthwise convolutions in TFLite · Advisory · tensorflow/tensorflow · GitHub	github.com text/html	CONFIRM github.com/tensorflow/tensorflow/security/advisories/GHSA-42f3-42f3-42f3-42f3
[lite] Add validation check for dilation height/width to be positive ... · tensorflow/tensorflow@e5b0eec · GitHub	github.com text/html	MISC github.com/tensorflow/tensorflow/commit/e5b0eec199c2d03de54fd

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There are currently no QIDs associated with this CVE

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Application	Google	Tensorflow	2.7.0	All	All	All
Application	Google	Tensorflow	All	All	All	All
Application	Google	Tensorflow	All	All	All	All

cpe:2.3:a:google:tensorflow:2.7.0:*:*:*:*:*:

cpe:2.3:a:google:tensorflow:*:*:*:*:*:

cpe:2.3:a:google:tensorflow:*:*:*:*:*:

No vendor comments have been submitted for this CVE

Social Mentions

Source	Title	Posted (UTC)
@CVEreport	CVE-2022-21741 : Tensorflow is an Open Source Machine Learning Framework. ### Impact An attacker can craft a TFLit... twitter.com/i/web/status/1...	2022-02-03 14:36:27
/r/netcve	CVE-2022-21741	2022-02-03 15:38:30

← Previous ID

Next ID →

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