

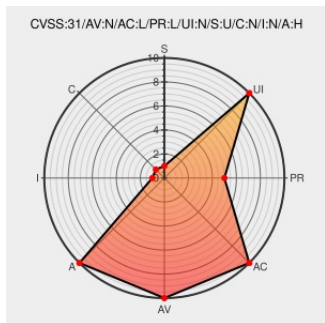


CVE-2022-23557

Published on: 02/04/2022 12:00:00 AM UTC

Last Modified on: 02/09/2022 08:23:00 PM UTC

CVE-2022-23557 - advisory for GHSA-gf2j-f278-xh4v

[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. An attacker can craft a TFLite model that would trigger a division by zero in `BiasAndClamp` implementation. There is no check that the `bias\_size` is non zero. The fix will be included in TensorFlow 2.8.0.

We will also cherrypick 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-2022-23557 has been assigned by security-advisories@github.com to track the vulnerability - currently rated as **MEDIUM** severity.

Affected Vendor/Software: tensorflow - tensorflow version $\geq 2.7.0$, $< 2.7.1$

Affected Vendor/Software: tensorflow - tensorflow version $\geq 2.6.0$, $< 2.6.3$

Affected Vendor/Software: tensorflow - tensorflow version $< 2.5.3$

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: **4 - MEDIUM**

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

CVE References

Description	Tags	Link
tensorflow/common.h at 5100e359aef5c8021f2e71c7b986420b85ce7b3d · tensorflow/tensorflow · GitHub	github.com text/html	MISC github.com/tensorflow/tensorflow/blob/5100e359aef5c8021f2e71c7b986420b85ce7b3d/tensorflow/common.h
FPE in `BiasAndClamp` in TFLite · Advisory · tensorflow/tensorflow · GitHub	github.com text/html	CONFIRM github.com/tensorflow/tensorflow/security/advisories/GHSA-gf5p-4p3p-4p3p
[lite] Add check for bias_size is zero to avoid division by zero. This... · tensorflow/tensorflow@8c6f391 · GitHub	github.com text/html	MISC github.com/tensorflow/tensorflow/commit/8c6f391a2282684a25cbfe

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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-2022-23557 : Tensorflow is an Open Source Machine Learning Framework. An attacker can craft a TFLite model that... twitter.com/i/web/status/1...	2022-02-04 22:41:43
@LinInfoSec	Tensorflow - CVE-2022-23557: github.com/tensorflow/ten...	2022-02-05 02:00:08

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