

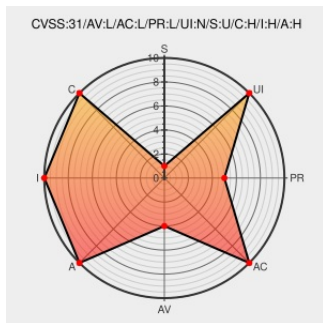


CVE-2021-37671

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CVE-2021-37671 - advisory for GHSA-qr82-2c78-4m8h

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

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

TensorFlow is an end-to-end open source platform for machine learning. In affected versions an attacker can cause undefined behavior via binding a reference to null pointer in ``tf.raw_ops.Map*`` and ``tf.raw_ops.OrderedMap*`` operations. The [implementation]

(https://github.com/tensorflow/tensorflow/blob/460e000de3a83278fb00b61a16d161b1964f15f4_L248) has a check in place to ensure that ``indices`` is in ascending order, but does not check that ``indices`` is not empty. We have patched the issue in GitHub commit [532f5c5a547126c634fed43bbad1dc6417678ac](https://github.com/tensorflow/tensorflow/commit/532f5c5a547126c634fed43bbad1dc6417678ac). The fix will be included in TensorFlow 2.6.0. We will also cherry-pick this commit on TensorFlow 2.5.1, TensorFlow 2.4.3, and TensorFlow 2.3.4, as these are also affected and still in supported range.

CVE-2021-37671 has been assigned by [security-advisories@github.com](#) to track the vulnerability - currently rated as **HIGH** severity.

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version `>= 2.5.0, < 2.5.1`

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version `>= 2.4.0, < 2.4.3`

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version `< 2.3.4`

CVSS3 Score: **7.8 - HIGH**

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

CVSS2 Score: **4.6 - MEDIUM**

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

CVE References

Description	Tags	Link
Reference binding to nullptr in map operations · Advisory · tensorflow/tensorflow · GitHub	github.com text/html	CONFIRM github.com/tensorflow/tensorflow/security/advisories/GHSA-qr82-2c78-4m8h
Prevent nullptr deref in validation of indexes in map ops. · tensorflow/tensorflow@532f5c5 · GitHub	github.com text/html	MISC github.com/tensorflow/tensorflow/commit/532f5c5a547126c634fe4d43bbad1dc6417678ac

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Related QID Numbers

981540 Python (pip) Security Update for tensorflow-gpu (GHSA-qr82-2c78-4m8h)

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Application	Google	Tensorflow	All	All	All	All
Application	Google	Tensorflow	2.5.0	All	All	All
Application	Google	Tensorflow	2.6.0	rc0	All	All
Application	Google	Tensorflow	2.6.0	rc1	All	All
Application	Google	Tensorflow	2.6.0	rc2	All	All

cpe:2.3:a:google:tensorflow:*.*:~::~:
cpe:2.3:a:google:tensorflow:2.5.0:~::~:
cpe:2.3:a:google:tensorflow:2.6.0:rc0:~::~:
cpe:2.3:a:google:tensorflow:2.6.0:rc1:~::~:
cpe:2.3:a:google:tensorflow:2.6.0:rc2:~::~:

No vendor comments have been submitted for this CVE

Social Mentions

Source	Title	Posted (UTC)
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 @CVEreport	CVE-2021-37671 : TensorFlow is an end-to-end open source platform for machine learning. In affected versions an att... twitter.com/i/web/status/1...	2021-08-12 21:51:16
 @LinInfoSec	Tensorflow - CVE-2021-37671: github.com/tensorflow/ten...	2021-08-13 00:52:16

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