

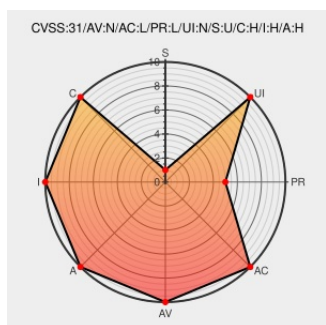


CVE-2022-23587

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CVE-2022-23587 - advisory for GHSA-8jj7-5vxc-pg2q

[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. Under certain scenarios, Grappler component of TensorFlow is vulnerable to an integer overflow during cost estimation for crop and resize. Since the cropping parameters are user controlled, a malicious person can trigger undefined behavior. 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-2022-23587 has been assigned by [security-advisories@github.com](#) to track the vulnerability - currently rated as **CRITICAL** 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: **9.8 - CRITICAL**

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

CVSS2 Score: **7.5 - HIGH**

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

PARTIAL

PARTIAL

PARTIAL

CVE References

Description	Tags	Link
Integer overflow in Grappler cost estimation of crop and resize operation · Advisory · tensorflow/tensorflow · GitHub	github.com text/html	 CONFIRM github.com/tensorflow/tensorflow/security/advisories/GHSA-8j
tensorflow/op_level_cost_estimator.cc at a1320ec1eac186da1d03f033109191f715b2b130 · tensorflow/tensorflow · GitHub	github.com text/html	 MISC github.com/tensorflow/tensorflow/blob/a1320ec1eac186da1d03f033109191fL2689
Prevent overflow in grappler cost estimation of crop&resize op. · tensorflow/tensorflow@0aaaae6 · GitHub	github.com text/html	 MISC github.com/tensorflow/tensorflow/commit/0aaaae6eca5a7175a193

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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-2022-23587 : Tensorflow is an Open Source Machine Learning Framework. Under certain scenarios, Grappler compone... twitter.com/i/web/status/1...	2022-02-04 22:50:58
 @LinInfoSec	Tensorflow - CVE-2022-23587: github.com/tensorflow/ten...	2022-02-05 02:00:11
 /r/netcve	CVE-2022-23587	2022-02-04 23:38:43

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