



CVE-2022-23566

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CVE-2022-23566 - advisory for GHSA-5qw5-89mw-wcg2

[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. TensorFlow is vulnerable to a heap OOB write in `Grappler`. The `set\_output` function writes to an array at the specified index. Hence, this gives a malicious user a write primitive. 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-2022-23566 has been assigned by security-advisories@github.com to track the vulnerability - currently rated as **HIGH** 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: **8.8 - HIGH**

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

CVSS2 Score: **6.5 - MEDIUM**

Access Vector	Access Complexity	Authentication
NETWORK	LOW	SINGLE
Confidentiality Impact	Integrity Impact	Availability Impact

CVE References

Description	Tags	Link
tensorflow/shape_inference.h at a1320ec1eac186da1d03f033109191f715b2b130 · tensorflow/tensorflow · GitHub	github.com text/html	 MISC github.com/tensorflow/tensorflow/blob/a1320ec1eac186da1d03f033109191f715b2b130/tensorflow/shape_inference.h
tensorflow/graph_properties.cc at a1320ec1eac186da1d03f033109191f715b2b130 · tensorflow/tensorflow · GitHub	github.com text/html	 MISC github.com/tensorflow/tensorflow/blob/a1320ec1eac186da1d03f033109191f715b2b130/tensorflow/graph_properties.cc L1141
Heap OOB write in Grappler · Advisory · tensorflow/tensorflow · GitHub	github.com text/html	 CONFIRM github.com/tensorflow/tensorflow/security/advisories/GHSA-5c4d-4b4a-4b4a-4b4a
Prevent a crash due to heap OOB write in grappler. · tensorflow/tensorflow@97282c6 · GitHub	github.com text/html	 MISC github.com/tensorflow/tensorflow/commit/97282c6d0d34476b6ba0

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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-2022-23566 : Tensorflow is an Open Source Machine Learning Framework. TensorFlow is vulnerable to a heap OOB wr... twitter.com/i/web/status/1...	2022-02-04 22:45:01
 @LinInfoSec	Tensorflow - CVE-2022-23566: github.com/tensorflow/ten...	2022-02-05 02:00:09

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