

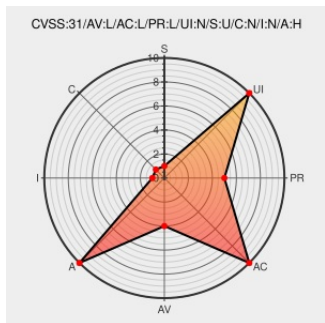


CVE-2021-37653

Published on: 08/12/2021 12:00:00 AM UTC

Last Modified on: 08/18/2021 05:02:00 PM UTC

CVE-2021-37653 - advisory for GHSA-qjj8-32p7-h289

[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 trigger a crash via a floating point exception in ``tf.raw_ops.ResourceGather``. The [implementation]

(<https://github.com/tensorflow/tensorflow/blob/f24faa153ad31a4b51578f8181d3aaab77a1ddeb/L731>) computes the value of a value, ``batch_size``, and then divides by it without checking that this value is not 0. We have patched the issue in GitHub commit `ac117ee8a8ea57b73d34665cdf00ef3303bc0b11`. The fix will be included in TensorFlow 2.6.0. We will also cherrypick 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-2021-37653 has been assigned by [security-advisories@github.com](#) to track the vulnerability - currently rated as **MEDIUM** 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: **5.5 - MEDIUM**

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

CVSS2 Score: **2.1 - LOW**

Access

Access

Authentication

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

CVE References

Description	Tags	Link
Prevent division by 0 in <code>`resource_variable_ops.cc`</code> · tensorflow/tensorflow@ac117ee · GitHub	github.com text/html	 MISC github.com/tensorflow/tensorflow/commit/ac117ee8a8ea57b73d34665cdf00ef3303bc0b11
Division by 0 in <code>`ResourceGather`</code> · Advisory · tensorflow/tensorflow · GitHub	github.com text/html	 CONFIRM github.com/tensorflow/tensorflow/security/advisories/GHSA-qjj8-32p7-h289

By selecting these links, you may be leaving CVEreport webspace. We have provided these links to other websites because they may have information that would be of interest to you. No inferences should be drawn on account of other sites being referenced, or not, from this page. There may be other websites that are more appropriate for your purpose. CVEreport does not necessarily endorse the views expressed, or concur with the facts presented on these sites. Further, CVEreport does not endorse any commercial products that may be mentioned on these sites. Please address comments about any linked pages to comment@cve.report.

Related QID Numbers

[981522](#) Python (pip) Security Update for tensorflow-gpu (GHSA-qjj8-32p7-h289)

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

<code>cpe:2.3:a:google:tensorflow:*.:*:*:*:*.*</code>
<code>cpe:2.3:a:google:tensorflow:2.5.0:*.:*:*:*.*</code>
<code>cpe:2.3:a:google:tensorflow:2.6.0:rc0:*.:*:*:*.*</code>
<code>cpe:2.3:a:google:tensorflow:2.6.0:rc1:*.:*:*:*.*</code>
<code>cpe:2.3:a:google:tensorflow:2.6.0:rc2:*.:*:*:*.*</code>

No vendor comments have been submitted for this CVE

Social Mentions

Source	Title	Posted (UTC)
 @CVEreport	CVE-2021-37653 : 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 17:46:40
← Previous ID		Next ID→

© [CVE.report](#) 2024   |

Use of this information constitutes acceptance for use in an AS IS condition. There are NO warranties, implied or otherwise, with regard to this information or its use. Any use of this information is at the user's risk. It is the responsibility of user to evaluate the accuracy, completeness or usefulness of any information, opinion, advice or other content. EACH USER WILL BE SOLELY RESPONSIBLE FOR ANY consequences of his or her direct or indirect use of this web site. ALL WARRANTIES OF ANY KIND ARE EXPRESSLY DISCLAIMED. This site will NOT BE LIABLE FOR ANY DIRECT, INDIRECT or any other kind of loss.

CVE, CWE, and OVAL are registered trademarks of [The MITRE Corporation](#) and the authoritative source of CVE content is [MITRE's CVE web site](#). This site includes MITRE data granted under the following [license](#).

CVE.report and Source URL Uptime Status [status.cve.report](#)