

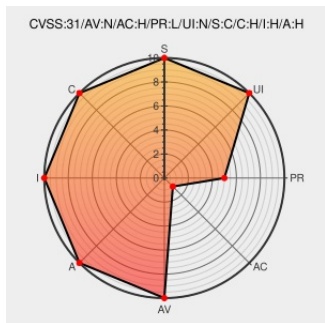


CVE-2020-15195

Published on: 09/25/2020 12:00:00 AM UTC

Last Modified on: 11/18/2021 05:20:00 PM UTC

CVE-2020-15195 - advisory for GHSA-63xm-rx5p-xvqr

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

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

In Tensorflow before versions 1.15.4, 2.0.3, 2.1.2, 2.2.1 and 2.3.1, the implementation of ``SparseFillEmptyRowsGrad`` uses a double indexing pattern. It is possible for ``reverse_index_map(i)`` to be an index outside of bounds of ``grad_values``, thus resulting in a heap buffer overflow.

The issue is patched in commit

390611e0d45c5793c7066110af37c8514e6a6c54, and is released in TensorFlow versions 1.15.4, 2.0.3, 2.1.2, 2.2.1, or 2.3.1.

CVE-2020-15195 has been assigned by [security-advisories@github.com](#) to track the vulnerability - currently rated as **HIGH** severity.

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version < 1.15.4

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version >= 2.0.0, < 2.0.3

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version >= 2.1.0, < 2.1.2

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version >= 2.2.0, < 2.2.1

Affected Vendor/Software: [tensorflow](#) - **tensorflow** version >= 2.3.0, < 2.3.1

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
PARTIAL	PARTIAL	PARTIAL

CVE References

Description	Tags	Link
Fix heap buffer overflow in `tf.raw_ops.SparseFillEmptyRowsGrad` · tensorflow/tensorflow@390611e · GitHub	Patch Third Party Advisory github.com text/html	MISC github.com/tensorflow/tensorflow/commit/390611e0d45c5793c7066110af37c
Release TensorFlow 2.3.1 · tensorflow/tensorflow · GitHub	Third Party Advisory github.com text/html	MISC github.com/tensorflow/tensorflow/releases/tag/v2.3.1
[security-announce] openSUSE-SU-2020:1766-1: moderate: Security update f	lists.opensuse.org text/html	SUSE openSUSE-SU-2020:1766
Heap buffer overflow in SparseFillEmptyRowsGrad · Advisory · tensorflow/tensorflow · GitHub	Exploit Third Party Advisory github.com text/html	CONFIRM github.com/tensorflow/tensorflow/security/advisories/GHSA-63xm-rx5p-xvqr

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Related QID Numbers

980051 Python (pip) Security Update for tensorflow-gpu (GHSA-63xm-rx5p-xvqr)

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Application	Google	Tensorflow	All	All	All	All
Operating System	Opensuse	Leap	15.2	All	All	All
Application	Tensorflow	Tensorflow	All	All	All	All
Application	Tensorflow	Tensorflow	All	All	All	All
cpe:2.3:a:google:tensorflow:*:*:*:*:*:						
cpe:2.3:o:opensuse:leap:15.2:*:*:*:*:						
cpe:2.3:a:tensorflow:tensorflow:*:*:*:*:*:						
cpe:2.3:a:tensorflow:tensorflow:*:*:*:*:*:						

No vendor comments have been submitted for this CVE

Social Mentions

Source	Title	Posted (UTC)
 @LinInfoSec	Tensorflow - CVE-2020-15195: github.com/tensorflow/ten...	2021-09-16 19:45:17

[← Previous ID](#)[Next ID→](#)

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