TorchScript Unsupported Pytorch Constructs

Torch and Tensor Unsupported Attributes

TorchScript supports most methods defined on `torch` and `torch.Tensor`, but we do not have full coverage. Here are specific known ops and categories of ops which have diverging behavior between Python and TorchScript. If you encounter something else that is not supported please file a GitHub issue. Deprecated ops are not listed below.

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 17`)
>
> Unknown directive type "automodule".
>
> ```
>     .. automodule:: torch.jit.unsupported_tensor_ops
> ```

Functions Not Correctly Bound on Torch

The following functions will fail if used in TorchScript, either because they are not bound on *torch* or because Python expects a different schema than TorchScript.

- :func:`torch.tensordot`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 27); backlink`
  >
  > Unknown interpreted text role "func".

- :func:`torch.nn.init.calculate_gain`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 28); backlink`
  >
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- :func:`torch.nn.init.eye_`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 29); backlink`
  >
  > Unknown interpreted text role "func".

- :func:`torch.nn.init.dirac_`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 30); backlink`
  >
  > Unknown interpreted text role "func".

- :func:`torch.nn.init.kaiming_normal_`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 31); backlink`
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- :func:`torch.nn.init.orthogonal_`

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> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 32**); *backlink*
>
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- :func:`torch.nn.init.sparse`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 33**); *backlink*
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Ops With Divergent Schemas Between Torch & Python

The following categories of ops have divergent schemas:

Functions which construct tensors from non-tensor inputs do not support the *requires_grad* argument, except for *torch.tensor*. This covers the following ops:

- :func:`torch.norm`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 44**); *backlink*
  >
  > Unknown interpreted text role "func".

- :func:`torch.bartlett_window`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 45**); *backlink*
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- :func:`torch.blackman_window`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 46**); *backlink*
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- :func:`torch.empty`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 47**); *backlink*
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  > Unknown interpreted text role "func".

- :func:`torch.empty_like`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 48**); *backlink*
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- :func:`torch.empty_strided`

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 49**); *backlink*
  >
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- :func:`torch.eye`

  > **System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 50); *backlink*
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- :func:`torch.full`

  > **System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 51); *backlink*
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- :func:`torch.full_like`

  > **System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 52); *backlink*
  >
  > Unknown interpreted text role "func".

- :func:`torch.hamming_window`

  > **System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 53); *backlink*
  >
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- :func:`torch.hann_window`

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- :func:`torch.linspace`

  > **System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 55); *backlink*
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- :func:`torch.logspace`

  > **System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst, line 56); *backlink*
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- :func:`torch.normal`

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- :func:`torch.ones`

- :func:`torch.rand`

- :func:`torch.rand_like`

- :func:`torch.randint_like`

- :func:`torch.randn`

- :func:`torch.randn_like`

- :func:`torch.randperm`

- :func:`torch.tril_indices`

- :func:`torch.triu_indices`

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- :func:`torch.vander`

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- :func:`torch.zeros`

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- :func:`torch.zeros_like`

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The following functions require *dtype*, *layout*, *device* as parameters in TorchScript, but these parameters are optional in Python.

- :func:`torch.randint`

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- :func:`torch.sparse_coo_tensor`

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- :meth:`~torch.Tensor.to`

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PyTorch Unsupported Modules and Classes

TorchScript cannot currently compile a number of other commonly used PyTorch constructs. Below are listed the modules that TorchScript does not support, and an incomplete list of PyTorch classes that are not supported. For unsupported modules we suggest using :meth:`torch.jit.trace`.

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- :class:`torch.nn.RNN`

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\pytorch-master\docs\source\[pytorch-master][docs][source]jit_unsupported.rst`, **line 87);** *backlink*

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- :class:`torch.nn.AdaptiveLogSoftmaxWithLoss`

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- :class:`torch.autograd.Function`

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- :class:`torch.autograd.enable_grad`

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- :class:`torch.Generator`

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