

tf.train.NanTensorHook

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Class `NanTensorHook`

Inherits From: `SessionRunHook`

Defined in `tensorflow/python/training/basic_session_run_hooks.py`.

See the guide: [Training > Training Hooks](#)

Monitors the loss tensor and stops training if loss is NaN.

Can either fail with exception or just stop training.

Methods

`__init__`

```
__init__(  
    loss_tensor,  
    fail_on_nan_loss=True  
)
```

Initializes a `NanTensorHook`.

Args:

- `loss_tensor`: `Tensor`, the loss tensor.
- `fail_on_nan_loss`: `bool`, whether to raise exception when loss is NaN.

`after_create_session`

```
after_create_session(  
    session,  
    coord  
)
```

Called when new TensorFlow session is created.

This is called to signal the hooks that a new session has been created. This has two essential differences with the

situation in which `begin` is called:

- When this is called, the graph is finalized and ops can no longer be added to the graph.
- This method will also be called as a result of recovering a wrapped session, not only at the beginning of the overall session.

Args:

- `session` : A TensorFlow Session that has been created.
- `coord` : A Coordinator object which keeps track of all threads.

after_run

```
after_run(  
    run_context,  
    run_values  
)
```

before_run

```
before_run(run_context)
```

begin

```
begin()
```

Called once before using the session.

When called, the default graph is the one that will be launched in the session. The hook can modify the graph by adding new operations to it. After the `begin()` call the graph will be finalized and the other callbacks can not modify the graph anymore. Second call of `begin()` on the same graph, should not change the graph.

end

```
end(session)
```

Called at the end of session.

The `session` argument can be used in case the hook wants to run final ops, such as saving a last checkpoint.

If `session.run()` raises exception other than `OutOfRangeError` or `StopIteration` then `end()` is not called. Note the difference between `end()` and `after_run()` behavior when `session.run()` raises `OutOfRangeError` or `StopIteration`. In that case `end()` is called but `after_run()` is not called.

Args:

- `session` : A TensorFlow Session that will be soon closed.

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