## TencorFlow

TensorFlow API r1.4

## tfdbg.watch\_graph

```
watch_graph(
    run_options,
    graph,
    debug_ops='DebugIdentity',
    debug_urls=None,
    node_name_regex_whitelist=None,
    op_type_regex_whitelist=None,
    tensor_dtype_regex_whitelist=None,
    tolerate_debug_op_creation_failures=False,
    global_step=-1
)
```

Defined in tensorflow/python/debug/lib/debug\_utils.py.

See the guide: TensorFlow Debugger > Functions for adding debug watches

Add debug watches to RunOptions for a TensorFlow graph.

To watch all **Tensor** s on the graph, let both **node\_name\_regex\_whitelist** and **op\_type\_regex\_whitelist** be the default (**None**).

N.B.: 1. Under certain circumstances, the **Tensor** may not get actually watched (e.g., if the node of the **Tensor** is constant-folded during runtime). 2. For debugging purposes, the **parallel\_iteration** attribute of all **tf.while\_loop** s in the graph are set to 1 to prevent any node from being executed multiple times concurrently. This change does not affect subsequent non-debugged runs of the same **tf.while\_loop** s.

## Args:

- run\_options: An instance of config\_pb2.RunOptions to be modified.
- graph: An instance of ops.Graph.
- debug\_ops: (str or list of str) name(s) of the debug op(s) to use.
- debug\_urls: URLs to send debug values to. Can be a list of strings, a single string, or None. The case of a single string is equivalent to a list consisting of a single string, e.g., file://tmp/tfdbg\_dump\_1, grpc://localhost:12345. For debug op types with customizable attributes, each debug op name string can optionally contain a list of attribute names, in the syntax of: debug\_op\_name(attr\_name\_1=attr\_value\_1;attr\_name\_2=attr\_value\_2;...)
- node\_name\_regex\_whitelist: Regular-expression whitelist for node\_name, e.g., "(weight\_[0-9]+|bias\_.\*)"
- op\_type\_regex\_whitelist: Regular-expression whitelist for the op type of nodes, e.g., "(Variable|Add)". If both node\_name\_regex\_whitelist and op\_type\_regex\_whitelist are set, the two filtering operations will occur in a logical AND relation. In other words, a node will be included if and only if it hits both whitelists.
- tensor\_dtype\_regex\_whitelist: Regular-expression whitelist for Tensor data type, e.g., "^int.\*". This whitelist operates in logical AND relations to the two whitelists above.
- tolerate\_debug\_op\_creation\_failures: (bool) whether debug op creation failures (e.g., due to dtype incompatibility) are to be tolerated by not throwing exceptions.
- global\_step: (int) Optional global\_step count for this debug tensor watch.

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