

## tf.contrib.framework.nest.flatten

**flatten(nest)**

Defined in [tensorflow/python/util/nest.py](#).

Returns a flat list from a given nested structure.

If `nest` is not a sequence, tuple, or dict, then returns a single-element list: `[nest]`.

In the case of dict instances, the sequence consists of the values, sorted by key to ensure deterministic behavior. This is true also for `OrderedDict` instances: their sequence order is ignored, the sorting order of keys is used instead. The same convention is followed in `pack_sequence_as`. This correctly repacks dicts and `OrderedDict`s after they have been flattened, and also allows flattening an `OrderedDict` and then repacking it back using a corresponding plain dict, or vice-versa. Dictionaries with non-sortable keys cannot be flattened.

**Args:**

- `nest`: an arbitrarily nested structure or a scalar object. Note, numpy arrays are considered scalars.

**Returns:**

A Python list, the flattened version of the input.

**Raises:**

- `TypeError`: The nest is or contains a dict with non-sortable keys.

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