

## Module: tf.contrib.framework.nest

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Functions for working with arbitrarily nested sequences of elements.

### Functions

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

## Functions for working with arbitrarily nested sequences of elements.

This module can perform operations on nested structures. A nested structure is a Python sequence, tuple (including **namedtuple**), or dict that can contain further sequences, tuples, and dicts.

The utilities here assume (and do not check) that the nested structures form a 'tree', i.e., no references in the structure of the input of these functions should be recursive.

Example structures: `((3, 4), 5, (6, 7, (9, 10), 8))`, `(np.array(0), (np.array([3, 4]), tf.constant([3, 4])))`

## Functions

**assert\_same\_structure(...)** : Asserts that two structures are nested in the same way.

**assert\_shallow\_structure(...)** : Asserts that **shallow\_tree** is a shallow structure of **input\_tree**.

**flatten(...)** : Returns a flat list from a given nested structure.

**flatten\_dict\_items(...)** : Returns a dictionary with flattened keys and values.

**flatten\_up\_to(...)** : Flattens **input\_tree** up to **shallow\_tree**.

**get\_traverse\_shallow\_structure(...)** : Generates a shallow structure from a **traverse\_fn** and **structure**.

**is\_sequence(...)** : Returns a true if its input is a collections.Sequence (except strings).

**map\_structure(...)** : Applies **func** to each entry in **structure** and returns a new structure.

**map\_structure\_up\_to(...)** : Applies a function or op to a number of partially flattened inputs.

**pack\_sequence\_as(...)** : Returns a given flattened sequence packed into a given structure.

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