

## tf.constant

```
constant(  
    value,  
    dtype=None,  
    shape=None,  
    name='Const',  
    verify_shape=False  
)
```

Defined in [tensorflow/python/framework/constant\\_op.py](#).

See the guide: [Constants, Sequences, and Random Values > Constant Value Tensors](#)

Creates a constant tensor.

The resulting tensor is populated with values of type `dtype`, as specified by arguments `value` and (optionally) `shape` (see examples below).

The argument `value` can be a constant value, or a list of values of type `dtype`. If `value` is a list, then the length of the list must be less than or equal to the number of elements implied by the `shape` argument (if specified). In the case where the list length is less than the number of elements specified by `shape`, the last element in the list will be used to fill the remaining entries.

The argument `shape` is optional. If present, it specifies the dimensions of the resulting tensor. If not present, the shape of `value` is used.

If the argument `dtype` is not specified, then the type is inferred from the type of `value`.

For example:

```
# Constant 1-D Tensor populated with value list.  
tensor = tf.constant([1, 2, 3, 4, 5, 6, 7]) => [1 2 3 4 5 6 7]  
  
# Constant 2-D tensor populated with scalar value -1.  
tensor = tf.constant(-1.0, shape=[2, 3]) => [[-1. -1. -1.]  
                                             [-1. -1. -1.]]
```

## Args:

- `value`: A constant value (or list) of output type `dtype`.
- `dtype`: The type of the elements of the resulting tensor.
- `shape`: Optional dimensions of resulting tensor.
- `name`: Optional name for the tensor.
- `verify_shape`: Boolean that enables verification of a shape of values.

## Returns:

A Constant Tensor.

Raises:

- `TypeError` : if shape is incorrectly specified or unsupported.

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