

## tf.sparse\_tensor\_to\_dense

```
sparse_tensor_to_dense(  
    sp_input,  
    default_value=0,  
    validate_indices=True,  
    name=None  
)
```

Defined in [tensorflow/python/ops/sparse\\_ops.py](#).

See the guide: [Sparse Tensors > Conversion](#)

Converts a `SparseTensor` into a dense tensor.

This op is a convenience wrapper around `sparse_to_dense` for `SparseTensor` s.

For example, if `sp_input` has shape `[3, 5]` and non-empty string values:

```
[0, 1]: a  
[0, 3]: b  
[2, 0]: c
```

and `default_value` is `x`, then the output will be a dense `[3, 5]` string tensor with values:

```
[[x a x b x]  
 [x x x x x]  
 [c x x x x]]
```

Indices must be without repeats. This is only tested if `validate_indices` is `True`.

### Args:

- `sp_input`: The input `SparseTensor`.
- `default_value`: Scalar value to set for indices not specified in `sp_input`. Defaults to zero.
- `validate_indices`: A boolean value. If `True`, indices are checked to make sure they are sorted in lexicographic order and that there are no repeats.
- `name`: A name prefix for the returned tensors (optional).

### Returns:

A dense tensor with shape `sp_input.dense_shape` and values specified by the non-empty values in `sp_input`. Indices not in `sp_input` are assigned `default_value`.

### Raises:

- `TypeError`: If `sp_input` is not a `SparseTensor`.

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Last updated November 2, 2017.

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