

## tf.contrib.layers.weighted\_sparse\_column

```
weighted_sparse_column(  
    sparse_id_column,  
    weight_column_name,  
    dtype=tf.float32  
)
```

Defined in [tensorflow/contrib/layers/python/layers/feature\\_column.py](#).

See the guide: [Layers \(contrib\) > Feature columns](#)

Creates a `_SparseColumn` by combining `sparse_id_column` with a weight column.

Example:

```
sparse_feature = sparse_column_with_hash_bucket(column_name="sparse_col",  
                                                hash_bucket_size=1000)  
weighted_feature = weighted_sparse_column(sparse_id_column=sparse_feature,  
                                          weight_column_name="weights_col")
```

This configuration assumes that input dictionary of model contains the following two items: \* (key="sparse\_col", value=sparse\_tensor) where `sparse_tensor` is a `SparseTensor`. \* (key="weights\_col", value=weights\_tensor) where `weights_tensor` is a `SparseTensor`. Following are assumed to be true: \* `sparse_tensor.indices = weights_tensor.indices` \* `sparse_tensor.dense_shape = weights_tensor.dense_shape`

Args:

- `sparse_id_column`: A `_SparseColumn` which is created by `sparse_column_with_*` functions.
- `weight_column_name`: A string defining a sparse column name which represents weight or value of the corresponding sparse id feature.
- `dtype`: Type of weights, such as `tf.float32`. Only floating and integer weights are supported.

Returns:

A `_WeightedSparseColumn` composed of two sparse features: one represents id, the other represents weight (value) of the id feature in that example.

Raises:

- `ValueError`: if `dtype` is not convertible to float.

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