

## tf.feature\_column.numeric\_column

```
numeric_column(  
    key,  
    shape=(1,),  
    default_value=None,  
    dtype=tf.float32,  
    normalizer_fn=None  
)
```

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

Represents real valued or numerical features.

Example:

```
price = numeric_column('price')  
columns = [price, ...]  
features = tf.parse_example(..., features=make_parse_example_spec(columns))  
dense_tensor = input_layer(features, columns)  
  
# or  
bucketized_price = bucketized_column(price, boundaries=[...])  
columns = [bucketized_price, ...]  
features = tf.parse_example(..., features=make_parse_example_spec(columns))  
linear_prediction = linear_model(features, columns)
```

Args:

- key**: A unique string identifying the input feature. It is used as the column name and the dictionary key for feature parsing configs, feature **Tensor** objects, and feature columns.
- shape**: An iterable of integers specifies the shape of the **Tensor**. An integer can be given which means a single dimension **Tensor** with given width. The **Tensor** representing the column will have the shape of `[batch_size] + shape`.
- default\_value**: A single value compatible with **dtype** or an iterable of values compatible with **dtype** which the column takes on during **tf.Example** parsing if data is missing. A default value of **None** will cause **tf.parse\_example** to fail if an example does not contain this column. If a single value is provided, the same value will be applied as the default value for every item. If an iterable of values is provided, the shape of the **default\_value** should be equal to the given **shape**.
- dtype**: defines the type of values. Default value is **tf.float32**. Must be a non-quantized, real integer or floating point type.
- normalizer\_fn**: If not **None**, a function that can be used to normalize the value of the tensor after **default\_value** is applied for parsing. Normalizer function takes the input **Tensor** as its argument, and returns the output **Tensor**. (e.g. `lambda x: (x - 3.0) / 4.2`). Please note that even though the most common use case of this function is normalization, it can be used for any kind of Tensorflow transformations.

Returns:

A **\_NumericColumn**.

## Raises:

- `TypeError` : if any dimension in `shape` is not an int
- `ValueError` : if any dimension in `shape` is not a positive integer
- `TypeError` : if `default_value` is an iterable but not compatible with `shape`
- `TypeError` : if `default_value` is not compatible with `dtype` .
- `ValueError` : if `dtype` is not convertible to `tf.float32` .

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