tf.contrib.layers.scattered_embedding_column

```
scattered_embedding_column(
    column_name,
    size,
    dimension,
    hash_key,
    combiner='mean',
    initializer=None
)
```

Defined in `tensorflow/contrib/layers/python/layers/feature_column.py`.

See the guide: Layers (contrib) > Feature columns

Creates an embedding column of a sparse feature using parameter hashing.

This is a useful shorthand when you have a sparse feature you want to use an embedding for, but also want to hash the embedding's values in each dimension to a variable based on a different hash.

Specifically, the i-th embedding component of a value v is found by retrieving an embedding weight whose index is a fingerprint of the pair (v,i).

An embedding column with sparse_column_with_hash_bucket such as

```
embedding_column(
  sparse_column_with_hash_bucket(column_name, bucket_size),
  dimension)
```

could be replaced by

```
scattered_embedding_column(
  column_name,
  size=bucket_size * dimension,
  dimension=dimension,
  hash_key=tf.contrib.layers.SPARSE_FEATURE_CROSS_DEFAULT_HASH_KEY)
```

for the same number of embedding parameters. This should hopefully reduce the impact of collisions, but adds the cost of slowing down training.

Args:

- `column_name`: A string defining sparse column name.
- `size`: An integer specifying the number of parameters in the embedding layer.
- `dimension`: An integer specifying dimension of the embedding.
- `hash_key`: Specify the hash_key that will be used by the `FingerprintCat64` function to combine the crosses fingerprints on SparseFeatureCrossOp.
- `combiner`: A string specifying how to reduce if there are multiple entries in a single row. Currently "mean", "sqrtn" and "sum" are supported, with "mean" the default. "sqrtn" often achieves good accuracy, in particular with bag-of-words columns. Each of this can be thought as example level normalizations on the column:

- "sum": do not normalize features in the column
- "mean": do l1 normalization on features in the column
- "sqrtn": do l2 normalization on features in the column For more information: `tf.embedding_lookup_sparse`.

- `initializer`: A variable initializer function to be used in embedding variable initialization. If not specified, defaults to `tf.truncated_normal_initializer` with mean 0 and standard deviation 0.1.

Returns:

A _ScatteredEmbeddingColumn.

Raises:

- `ValueError`: if dimension or size is not a positive integer; or if combiner is not supported.
