tf.contrib.kfac.fisher_blocks.FullyConnectedKFACBasicFB

Class `FullyConnectedKFACBasicFB`

Inherits From: `KroneckerProductFB`

Defined in `tensorflow/contrib/kfac/python/ops/fisher_blocks.py`.

K-FAC FisherBlock for fully-connected (dense) layers.

This uses the Kronecker-factorized approximation from the original K-FAC paper (https://arxiv.org/abs/1503.05671)

Methods

`__init__`

```
__init__(
    layer_collection,
    inputs,
    outputs,
    has_bias=False
)
```

Creates a FullyConnectedKFACBasicFB block.

Args:

- `layer_collection`: The collection of all layers in the K-FAC approximate Fisher information matrix to which this FisherBlock belongs.
- `inputs`: The Tensor of input activations to this layer.
- `outputs`: The Tensor of output pre-activations from this layer.
- `has_bias`: Whether the component Kronecker factors have an additive bias. (Default: False)

`full_fisher_block`

```
full_fisher_block()
```

Explicitly constructs the full Fisher block.

Used for testing purposes. (In general, the result may be very large.)

Returns:

The full Fisher block.

`instantiate_factors`

```
instantiate_factors(
    grads_list,
    damping
)
```

`multiply`

```
multiply(vector)
```

`multiply_inverse`

```
multiply_inverse(vector)
```

`tensors_to_compute_grads`

```
tensors_to_compute_grads()
```


Last updated November 2, 2017.