tf.contrib.kfac.fisher_blocks.FullyConnectedDiagonalFB

Contents

Class `FullyConnectedDiagonalFB`

Inherits From: `FisherBlock`

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

FisherBlock for fully-connected (dense) layers using a diagonal approx.

Unlike NaiveDiagonalFB this uses the low-variance "sum of squares" estimator that is computed using the well-known trick.

Methods

`__init__`

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

Creates a FullyConnectedDiagonalFB 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)

`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.