GaussianNoise

[source]

```
keras.layers.noise.GaussianNoise(sigma)
```

Apply to the input an additive zero-centered Gaussian noise with standard deviation `sigma`. This is useful to mitigate overfitting (you could see it as a kind of random data augmentation). Gaussian Noise (GS) is a natural choice as corruption process for real valued inputs.

As it is a regularization layer, it is only active at training time.

Arguments

- **sigma**: float, standard deviation of the noise distribution.

Input shape

Arbitrary. Use the keyword argument `input_shape` (tuple of integers, does not include the samples axis) when using this layer as the first layer in a model.

Output shape

Same shape as input.

GaussianDropout

[source]

```
keras.layers.noise.GaussianDropout(p)
```

Apply to the input an multiplicative one-centered Gaussian noise with standard deviation `sqrt(p/(1-p))`.

As it is a regularization layer, it is only active at training time.

Arguments

- **p**: float, drop probability (as with `Dropout`).

Input shape

Arbitrary. Use the keyword argument `input_shape` (tuple of integers, does not include the samples axis) when using this layer as the first layer in a model.

Output shape

Same shape as input.

References

- __Dropout__: A Simple Way to Prevent Neural Networks from Overfitting Srivastava, Hinton, et al. 2014