

## ReLU

CLASS `torch.nn.ReLU(inplace: bool = False)`

[SOURCE]

Applies the rectified linear unit function element-wise:

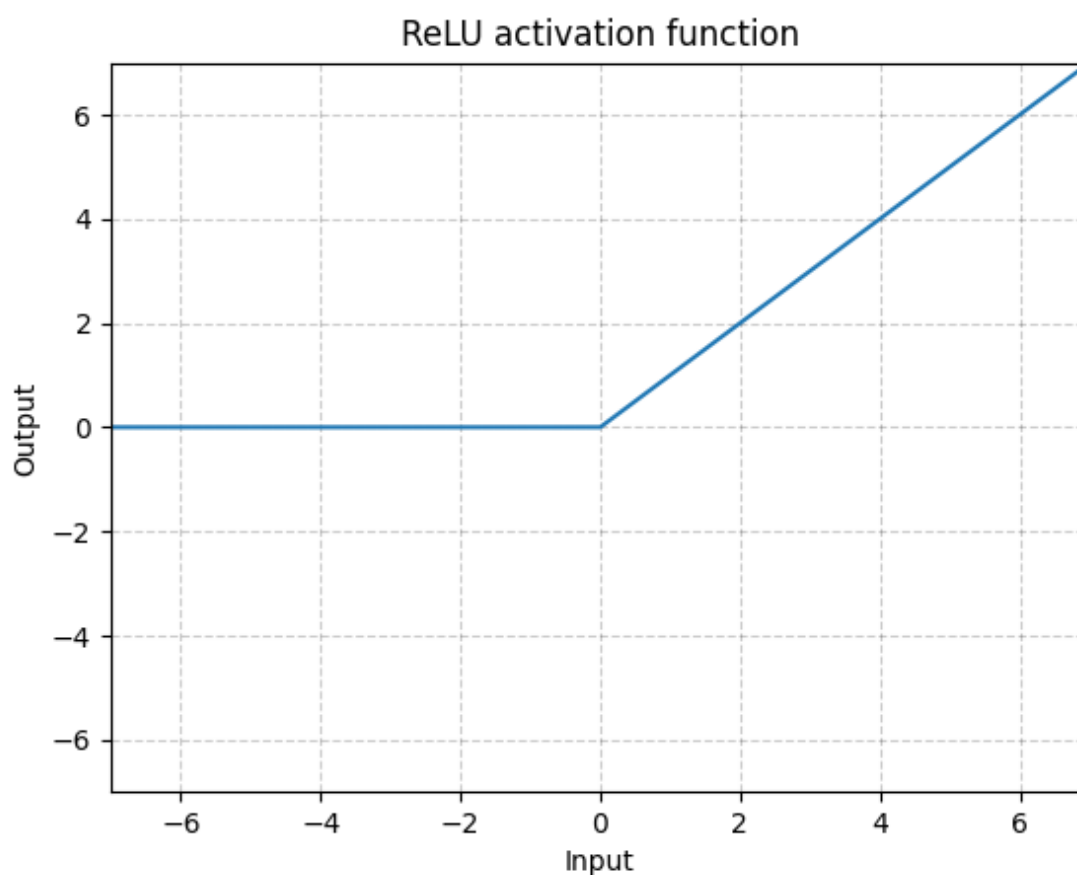
$$\text{ReLU}(x) = (x)^+ = \max(0, x)$$

Parameters

**inplace** – can optionally do the operation in-place. Default: False

Shape:

- Input:  $(N, *)$  where \* means, any number of additional dimensions
- Output:  $(N, *)$ , same shape as the input



Examples:

```
>>> m = nn.ReLU()
>>> input = torch.randn(2)
>>> output = m(input)
```

An implementation of CReLU - <https://arxiv.org/abs/1603.05201>

```
>>> m = nn.ReLU()
>>> input = torch.randn(2).unsqueeze(0)
>>> output = torch.cat((m(input), m(-input)))
```

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