

GELU

CLASS torch.nn.GELU(*approximate*= 'none') [SOURCE]

Applies the Gaussian Error Linear Units function.

$$\text{GELU}(x) = x * \Phi(x)$$

where $\Phi(x)$ is the Cumulative Distribution Function for Gaussian Distribution.

When the approximate argument is 'tanh', Gelu is estimated with:

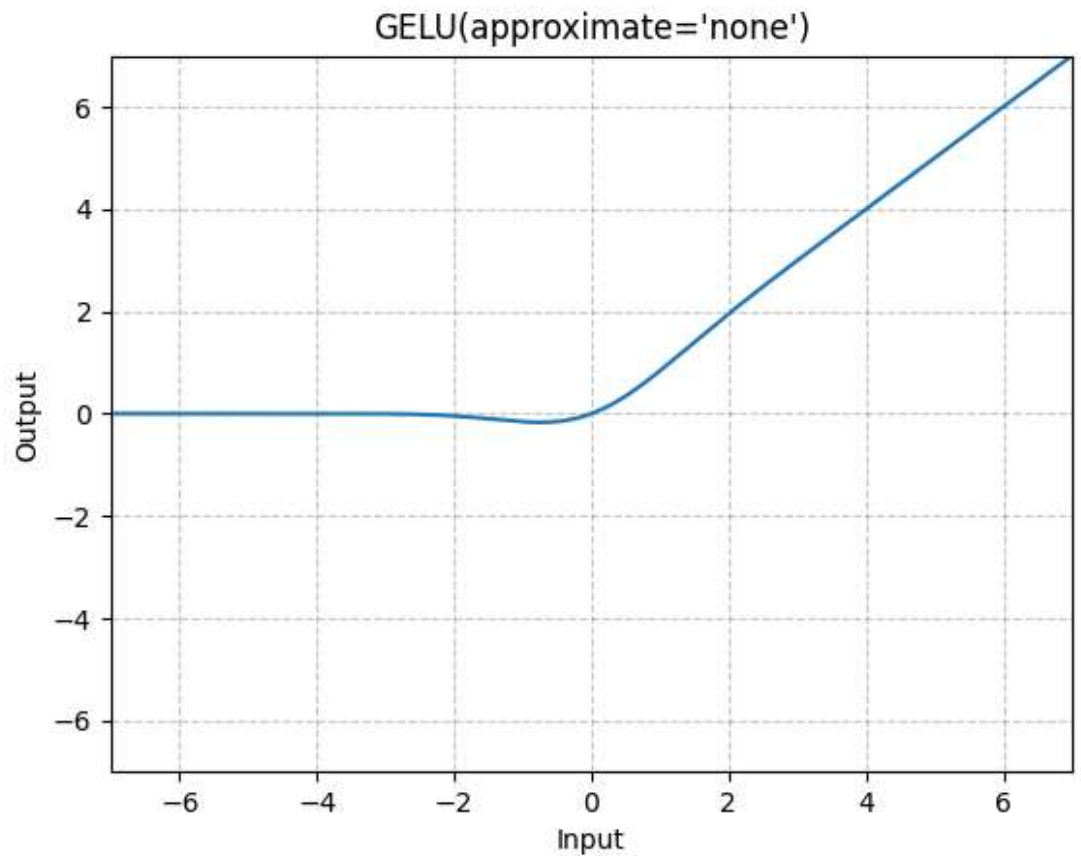
$$\text{GELU}(x) = 0.5 * x * (1 + \text{Tanh}(\sqrt{2/\pi} * (x + 0.044715 * x^3)))$$

Parameters

approximate (*str*, optional) – the gelu approximation algorithm to use: 'none' | 'tanh' . Default: 'none'

Shape:

- Input: (*), where * means any number of dimensions.
- Output: (*), same shape as the input.



Examples:

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

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