

# Module: tf.keras.activations

## Functions

**`deserialize(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/deserialize](https://www.tensorflow.org/api_docs/python/tf/keras/activations/deserialize)): Returns activation function given a string identifier.

**`elu(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/elu](https://www.tensorflow.org/api_docs/python/tf/keras/activations/elu)): Exponential Linear Unit.

**`exponential(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/exponential](https://www.tensorflow.org/api_docs/python/tf/keras/activations/exponential)): Exponential activation function.

**`gelu(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/gelu](https://www.tensorflow.org/api_docs/python/tf/keras/activations/gelu)): Applies the Gaussian error linear unit (GELU) activation function.

**`get(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/get](https://www.tensorflow.org/api_docs/python/tf/keras/activations/get)): Returns function.

**`hard_sigmoid(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/hard\\_sigmoid](https://www.tensorflow.org/api_docs/python/tf/keras/activations/hard_sigmoid)): Hard sigmoid activation function.

**`linear(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/linear](https://www.tensorflow.org/api_docs/python/tf/keras/activations/linear)): Linear activation function (pass-through).

**`mish(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/mish](https://www.tensorflow.org/api_docs/python/tf/keras/activations/mish)): Mish activation function.

**`relu(...)`** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/relu](https://www.tensorflow.org/api_docs/python/tf/keras/activations/relu)): Applies the rectified linear unit activation function.

**selu(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/selu](https://www.tensorflow.org/api_docs/python/tf/keras/activations/selu)): Scaled Exponential Linear Unit (SELU).

**serialize(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/serialize](https://www.tensorflow.org/api_docs/python/tf/keras/activations/serialize)): Returns the string identifier of an activation function.

**sigmoid(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/sigmoid](https://www.tensorflow.org/api_docs/python/tf/keras/activations/sigmoid)): Sigmoid activation function,  $\text{sigmoid}(x) = 1 / (1 + \exp(-x))$ .

**softmax(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/softmax](https://www.tensorflow.org/api_docs/python/tf/keras/activations/softmax)): Softmax converts a vector of values to a probability distribution.

**softplus(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/softplus](https://www.tensorflow.org/api_docs/python/tf/keras/activations/softplus)): Softplus activation function,  $\text{softplus}(x) = \log(\exp(x) + 1)$ .

**softsign(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/softsign](https://www.tensorflow.org/api_docs/python/tf/keras/activations/softsign)): Softsign activation function,  $\text{softsign}(x) = x / (\text{abs}(x) + 1)$ .

**swish(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/swish](https://www.tensorflow.org/api_docs/python/tf/keras/activations/swish)): Swish activation function,  $\text{swish}(x) = x * \text{sigmoid}(x)$ .

**tanh(...)** ([https://www.tensorflow.org/api\\_docs/python/tf/keras/activations/tanh](https://www.tensorflow.org/api_docs/python/tf/keras/activations/tanh)): Hyperbolic tangent activation function.

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