nn.thresholded_relu

```

Copy fnthresholded_relu(tensor:@Tensor, alpha:@T)->Tensor

```

Applies the thresholded rectified linear unit (Thresholded ReLU) activation function element-wise to a given tensor.

The Thresholded ReLU function is defined as f(x) = x if x > alpha, f(x) = 0 otherwise, where x is the input element.

Args

- tensor
- (@Tensor
-) - A snapshot of a tensor to which the Leaky ReLU function will be applied.
- alpha
- (@T
-) - A snapshot of a fixed point scalar that defines the alpha value of the Thresholded ReLU function.
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Returns

A new fixed point tensor with the same shape as the input tensor and the Thresholded ReLU function applied element-wise.

Type Constraints

Constrain input and output types to fixed point tensors.

Examples

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Copy usecore::array::{ArrayTrait,SpanTrait};

useorion::operators::tensor::{TensorTrait,Tensor,FP8x23}; useorion::operators::nn::{NNTrait,FP8x23NN}; useorion::numbers::{FP8x23,FixedTrait};

fnthresholded_relu_example()->Tensor { lettensor=TensorTrait:::new( shape:array![2,2].span(), data:array![ FixedTrait::new(0,false), FixedTrait::new(256,false), FixedTrait::new(512,false), FixedTrait::new(257,false), ] .span(), ); letalpha=FixedTrait::from_felt(256);// 1.0

returnNNTrait::leaky_relu(@tensor,@alpha); }

                    [[0,0], [512,257]]

```

Previous nn.hard_sigmoid Next nn.gemm

Last updated3 months ago