tensor.shrink

```

Copy fnshrink(self:@Tensor, bias:Option, lambd:Option)->Tensor

```

Shrinks the input tensor element-wise to the output tensor with the same datatype and shape based on the following formula: If x < -lambd: y = x + bias; If x > lambd: y = x - bias; Otherwise: y = 0.

Args

- self
- (@Tensor
-) - The input tensor to be shrinked.
- bias
- (Option
-) - The bias value added to or subtracted from input tensor values.
- lambd
- (Option
-) - The lambd value defining the shrink condition.
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Returns

A newTensor of the same datatype and shape as the input tensor with shrinked values.

Type Constraints

Constrain input and output types to fixed point numbers.

Examples

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

useorion::operators::tensor::{TensorTrait,Tensor,FP8x23Tensor}; useorion::numbers::{FixedTrait,FP8x23};

fnshrink_example()->Tensor { lettensor=TensorTrait:::new( shape:array![2,2].span(), data:array![ FixedTrait::new(2,true), FixedTrait::new(1,true), FixedTrait::new(1,false), FixedTrait::new(2,false) ] .span(), ); letbias=Option::Some(FixedTrait::new(1,false)) letlambd=Option::Some(FixedTrait::new(1,false))

returntensor.shrink(tensor, bias, lambd); }

                [-8388608,0,0,8388608] // The fixed point representation of [-1,0,0,1]

```

Previous tensor.reduce_min Next tensor.reduce_mean

Last updated3 months ago