nn.softsign

```

Copy fnsoftsign(tensor:@Tensor)->Tensor;

```

Applies the Softsign function to an n-dimensional input Tensor such that the elements of the n-dimensional output Tensor lie in the range [-1,1].

! softsign (x i) = x i 1 + | x i | \text{softsign}(x_i) = \frac{x_i}{1 + |x_i|}

Args

- tensor
- (@Tensor
-) - The input tensor.
-

Returns

A Tensor of fixed point numbers with the same shape than the input Tensor.

Type Constraints

Constrain input and output types to fixed point tensors.

Examples

```

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

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

fnsoftsign_example()->Tensor { lettensor=TensorTrait::::new( shape:array![2,2].span(), data:array![ FixedTrait::new(0,false),
FixedTrait::new(1,false), FixedTrait::new(2,false), FixedTrait::new(3,false), ] .span(), );

returnNNTrait::softsign(@tensor); }

                [[0,4194304],[5592405,6291456]] // The fixed point representation of // [[0, 0.5],[0.67,
                0.75]]

```

Previous nn.logsoftmax Next nn.softplus

Last updated3 months ago