

nn.space_to_depth

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```
Copy fnspace_to_depth(tensor:@Tensor, blocksize:usize)->Tensor;
```

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SpaceToDepth rearranges blocks of spatial data into depth. More specifically, this op outputs a copy of the input tensor where values from the height and width dimensions are moved to the depth dimension.

Args

- tensor
- (@Tensor
-) - The input tensor of [N,C,H,W], where N is the batch axis, C is the channel or depth, H is the height and W is the width.
- blocksize
- (usize
-) - The size of the blocks to move along [blocksize, blocksize].
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Returns

A Tensor of [N, C * blocksize * blocksize, H/blocksize, W/blocksize].

Examples

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```
Copy usecore::array::{ArrayTrait,SpanTrait}; useorion::operators::tensor::{TensorTrait,Tensor}; useorion::operators::tensor::{I8Tensor,I8TensorAdd}; useorion::numbers::NumberTrait; useorion::operators::nn::NNTrait; useorion::operators::nn::I8NN; useorion::numbers::FixedTrait;
```

```
fn space_to_depth_example()->Tensor { let mut shape=ArrayTrait::new(); shape.append(1); shape.append(2); shape.append(2); shape.append(4);
```

```
let mut data=ArrayTrait::new(); data.append(-3); data.append(0); data.append(0); data.append(0); data.append(-1); data.append(1); data.append(-2); data.append(-3); data.append(2); data.append(-2); data.append(-3); data.append(-3); data.append(-1); data.append(0); data.append(1); data.append(-3); let tensor=TensorTrait::new(shape.span(), data.span()); return NNTrait::space_to_depth(@tensor,2); }
```

```
[[[-3,0]], [[2,-3]], [[0,0]], [[-2,-3]], [[-1,-2]], [[-1,1]], [[1,-3]], [[0,-3]]]
```

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