

# tensor.gather\_nd

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Copy fngather\_nd(self:@Tensor, indices:Tensor, batch\_dims:Option)->Tensor;

...

Given data tensor of rank  $r \geq 1$ , indices tensor of rank  $q \geq 1$ , and batch\_dims integer  $b$ , this operator gathers slices of data into an output tensor of rank  $q + r - \text{indices\_shape}[-1] - 1 - b$ .

## Args

- self
- (@Tensor
- ) - The input tensor.
- indices
- (Tensor
- ) - Tensor of indices.
- batch\_dims
- (Option
- ) - The number of batch dimensions. The gather of indexing starts from dimension of data[batch\_dims:].
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## Panics

- Panics if index values are not within bounds  $[-s, s-1]$  along axis of size  $s$ .
- Panics if  $\text{indices\_shape}[-1] > r-b$ .
- Panics if first  $b$  dimensions of the shape of indices tensor and data tensor are not equal.
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## Returns

A newTensor .

## Example

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Copy usearray::{ArrayTrait,SpanTrait}; useorion::operators::tensor::{TensorTrait,Tensor,U32Tensor};

```
fngather_nd_example()->Tensor { lettensor=TensorTrait::new( shape:array![2,2].span(), data:array![[0,1], [2,3]].span(), );  
letindices=TensorTrait::new( shape:array![4,1].span(), data:array![[0], [0], [1], [1]].span(), );
```

```
returntensor.gather_nd( indices:indices, axis:Option::Some((0)), ); }
```

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

...

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