

tf.gather

```
gather(
    params,
    indices,
    validate_indices=None,
    name=None,
    axis=0
)
```

Defined in [tensorflow/python/ops/array_ops.py](#).

See the guides: [Tensor Transformations > Slicing and Joining](#), [Variables > Sparse Variable Updates](#)

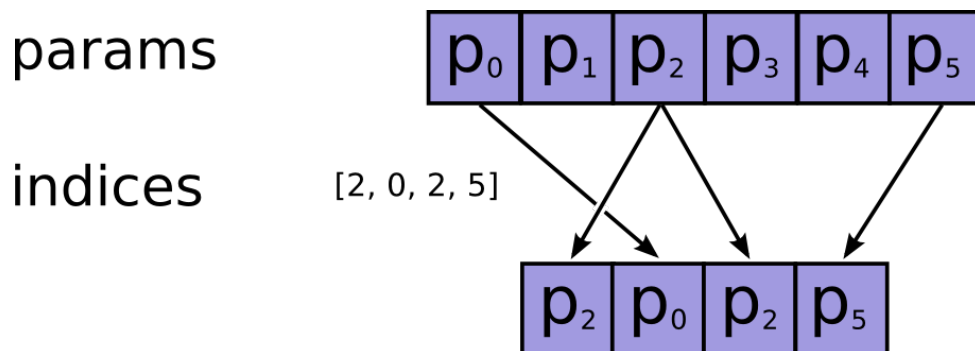
Gather slices from `params` axis `axis` according to `indices`.

`indices` must be an integer tensor of any dimension (usually 0-D or 1-D). Produces an output tensor with shape `params.shape[:axis] + indices.shape + params.shape[axis + 1:]` where:

```
# Scalar indices (output is rank(params) - 1).
output[a_0, ..., a_n, b_0, ..., b_n] =
    params[a_0, ..., a_n, indices, b_0, ..., b_n]

# Vector indices (output is rank(params)).
output[a_0, ..., a_n, i, b_0, ..., b_n] =
    params[a_0, ..., a_n, indices[i], b_0, ..., b_n]

# Higher rank indices (output is rank(params) + rank(indices) - 1).
output[a_0, ..., a_n, i, ..., j, b_0, ... b_n] =
    params[a_0, ..., a_n, indices[i, ..., j], b_0, ..., b_n]
```



Args:

- `params`: A **Tensor**. The tensor from which to gather values. Must be at least rank `axis + 1`.
- `indices`: A **Tensor**. Must be one of the following types: `int32`, `int64`. Index tensor. Must be in range `[0, params.shape[axis])`.
- `axis`: A **Tensor**. Must be one of the following types: `int32`, `int64`. The axis in `params` to gather `indices` from. Defaults to the first dimension. Supports negative indexes.
- `name`: A name for the operation (optional).

Returns:

A `Tensor`. Has the same type as `params`. Values from `params` gathered from indices given by `indices`, with shape `params.shape[:axis] + indices.shape + params.shape[axis + 1:]`.

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