

## tf.atan2

```
atan2(  
    y,  
    x,  
    name=None  
)
```

Defined in `tensorflow/python/ops/gen_math_ops.py`.

Computes arctangent of  $y/x$  element-wise, respecting signs of the arguments.

This is the angle  $(\theta \in [-\pi, \pi])$  such that  $[x = r \cos(\theta)]$  and  $[y = r \sin(\theta)]$  where  $(r = \sqrt{x^2 + y^2})$ .

## Args:

- $y$ : A `Tensor`. Must be one of the following types: `float32`, `float64`.
- $x$ : A `Tensor`. Must have the same type as  $y$ .
- `name`: A name for the operation (optional).

## Returns:

A `Tensor`. Has the same type as  $y$ .

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