

tf.matrix_solve

Contents

Aliases:

Aliases:

- `tf.linalg.solve`
- `tf.matrix_solve`

```
matrix_solve(  
    matrix,  
    rhs,  
    adjoint=False,  
    name=None  
)
```

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

See the guide: [Math > Matrix Math Functions](#)

Solves systems of linear equations.

Matrix is a tensor of shape `[..., M, M]` whose inner-most 2 dimensions form square matrices. **Rhs** is a tensor of shape `[..., M, K]`. The **output** is a tensor shape `[..., M, K]`. If **adjoint** is **False** then each output matrix satisfies `matrix[..., :, :] * output[..., :, :] = rhs[..., :, :]`. If **adjoint** is **True** then each output matrix satisfies `adjoint(matrix[..., :, :]) * output[..., :, :] = rhs[..., :, :]`.

Args:

- **matrix**: A **Tensor**. Must be one of the following types: `float64`, `float32`, `complex64`, `complex128`. Shape is `[..., M, M]`.
- **rhs**: A **Tensor**. Must have the same type as **matrix**. Shape is `[..., M, K]`.
- **adjoint**: An optional **bool**. Defaults to **False**. Boolean indicating whether to solve with **matrix** or its (block-wise) adjoint.
- **name**: A name for the operation (optional).

Returns:

A **Tensor**. Has the same type as **matrix**. Shape is `[..., M, K]`.

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