

VECTOR_TO_JSON_ARRAY (Transact-SQL)

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Applies to:  Azure SQL Database  Azure SQL Managed Instance

Note


This function is in preview and is subject to change. Preview features are not meant for production use and are subject to additional terms of use.

Warning

This function along with **JSON_ARRAY_TO_VECTOR** and **ISVECTOR**, which work with the varbinary(8000) datatype, will be phased out after the private preview, as the new **VECTOR** type is being introduced. These functions will remain available until the end of the private preview to assist early adopters in transitioning to the new vector type.

Returns a vector as a JSON array.

Syntax

 Transact-SQL syntax conventions

```
syntaxsql
```

```
VECTOR_TO_JSON_ARRAY ( expression )
```

Arguments

expression

The provided expression must evaluate to a vector.

Return value

Returns a JSON array string of nvarchar(max) type.

An error is returned if *expression* isn't a valid vector.

Examples

Make sure to check out the [Azure SQL DB Vector Search Samples](#) GitHub repo to get end-to-end working samples.

Example 1

The following example creates a table to store vectors and add a sample vector to it. Then it returns the stored vector as a JSON array.

SQL

```
DROP TABLE IF EXISTS dbo.vectors;
CREATE TABLE dbo.vectors (id INT PRIMARY KEY, v VARBINARY(8000));
GO

INSERT INTO dbo.vectors (id, v) VALUES (1, JSON_ARRAY_TO_VECTOR('[0.1, 2, 30]'))
GO

SELECT VECTOR_TO_JSON_ARRAY(v) FROM dbo.vectors WHERE id = 1
go
```

Example 2

The following example return dimension values of a vector stored in a table. It uses the table defined in the previous example.

SQL

```
SELECT
    [key] AS dimension,
    CAST([value] AS REAL) AS [value]
FROM
    dbo.vectors
CROSS APPLY
    OPENJSON(VECTOR_TO_JSON_ARRAY(v))
```

```
WHERE  
  id = 1
```

See also

- [Vector Functions \(Transact SQL\)](#)
- [Azure SQL DB Vector Search Samples](#)

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