

NeuroVision

Numpy cheatsheet



np.array(parameter)

- Creates a NumPy array from the provided parameter.
- The parameter can be a list, tuple, or other iterable object.
- The resulting array is a multi-dimensional data structure with elements of the same data type.

np.random.shuffle(parameter)

- Randomly shuffles the elements of the in-place array parameter.
- The order of elements is modified randomly.
- The original array is modified directly.

np.random.rand(para1, para2)

- Generates a random array of floating-point numbers between 0 and 1.
- The para1 and para2 arguments specify the shape of the array (number of rows and columns).
- The elements are uniformly distributed.

np.maximum(array1, array2)

- Element-wise maximum between two arrays array1 and array2.
- Returns a new array where each element is the maximum of the corresponding elements in the input arrays.

np.exp(array)

- Calculates the exponential of each element in the array array.
- The exponential function is defined as e^x , where e is Euler's number.

np.sum(array)

- Calculates the sum of all elements in the array array.
- If the array is multi-dimensional, the sum can be computed along specified axes.

np.zeros(shape)

- Creates a new array filled with zeros.
- The shape argument specifies the dimensions of the array.
- The data type of the elements is typically float64.

np.arange(start, stop, step)

- Creates an array of evenly spaced values within a specified range.
- The start argument specifies the starting value (inclusive).
- The stop argument specifies the ending value (exclusive).
- The step argument specifies the step size between elements (optional).

np.argmax(array)

- Returns the index of the maximum value in the array array.
- If the array is multi-dimensional, the index is returned as a tuple.
- The index refers to the position of the maximum element in the flattened array.