How can I convert a NumPy array to a list in Python?

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Converting a NumPy array to a list in Python involves using the built-in function "tolist()" which allows for the transformation of a NumPy array into a standard Python list. This process can be useful for accessing individual elements, manipulating data, or performing operations that are not supported by NumPy arrays. By converting the array to a list, the data becomes more versatile and can be utilized in a wider range of applications. Overall, the conversion from a NumPy array to a list provides greater flexibility and functionality in working with data in Python.

Convert NumPy Array to List in Python (With Examples)

You can use the following basic syntax to convert a NumPy array to a list in Python:

my_list = my_array.tolist()

The following examples show how to use this syntax in practice.

Example 1: Convert 1-Dimensional Array to List

The following code shows how to convert a 1-dimensional NumPy array to a list in Python:

import numpy as np

#create NumPy array
my_array = np.array()

#convert NumPy array to list

my_list = my_array.tolist()

#view list
print(my_list)

#view object type
type(my_list)

list

Example 2: Convert Multi-Dimensional Array to List

The following code shows how to convert a multi-dimensional NumPy array to a list in Python:

import numpy as np

#create NumPy array
my_array = np.array(,])

#convert NumPy array to list
my_list = my_array.tolist()

#view list
print(my_list)

,]

#view object type
type(my_list)

list

Example 3: Convert Multi-Dimensional Array to Flattened List

The following code shows how to convert a multi-dimensional NumPy array to a flattened list in Python:

import numpy as np

#create NumPy array
my_array = np.array(,])

#convert NumPy array to flattened list
my_list = my_array.flatten().tolist()

#view list
print(my_list)

#view object type
type(my_list)

list

The following tutorials explain how to perform other common conversions in Python: