Numpy basics

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Summaries Numpy Arrays

1. What are numpy array and how are they different than lists

It is an array with **one** data type. We can do operations on array, such as times and division.

2. How to make numpy arrays—you can use several examples here

Import numpy as np first

np.array([1,2,3]) #one-dim

np.array([1,2,3],[4,5,6]) #two-dim

np.zeros(dimension) such as np.zeros((3,4))

np.arrange(0,10,3) #(start,end+1,step)

np.linspace, np.full, np.random.rand, np.random.randint

3. How to index and slice numpy arrays

array[index1,(index2…indexn)]

array[0:2,8:9], array[:,0]

array[array<5]

4. Key methods associated with numpy arrays

np.sort(), np.flatten(), np.reshape(), np.resize(), np.sum(),np.min(), np.mean(axis=0), np.max(), np.corrcoef()

5. Key attributes associated with numpy arrays

size, shape, dtype, tolist, info

Summaries important numpy functions that you have used

np.append()

np.insert()

np.concatenate((array1, array2), axis=0)

np.substract()

np.power()

np.sin()

np.sqrt()

np.ceil()

np.floor()

np.round(,1)

np.mean(array, axis=0)

np.nanmean(array, axis=0)

np.std(array, axis=0)

np.nanstd(array, axis=0)

np.array\_equal(array1, array2)

np.split(array, 4) #split an array into four sub arrays

np.hsplit(array, 2) #split an array horizontally on the 2nd index