Kiru0310 / Python-for-machine-learning

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main Python-for-machine-learning / numpy4.ipynb Go to file t

Kiru0310 Add files via upload 980214b · 7 minutes ago

51 lines (51 loc) · 2.38 KB

Preview Code Blame Raw

In [5]:

```
import numpy as np
arr1=[10,20,30,40,50]
arr2=[2,4,5,8,10]
a=np.array(arr1)
b=np.array(arr2)
print("original arrays")
print(a)
print(b)
print("\n vector addition")
print(a+b)
print("\nvector subtration")
print(a-b)
print("\nvector multiplication")
print(a*b)
print("\nvector division")
print(a/b)
print("\nvector dot product")
print(a.dot(b))
print("\nscalar multiplication")
sclr=5
print("scalar value=",sclr)
print("array=",a)
print("result=",a*sclr)
#numpy.vectroize method
def my_func(x, y):
#"Return x-y if x>y, otherwise return x+y"
        if x> y:
            return x -y
        else:
            return x +y
print("\n\nNumpy. Vectorize method")
print("(Return x-y if x>y, otherwise return x+y)")
arr1=[10,4,20]
arr2=[2,3,30]
vec_func = np.vectorize(my_func)
print("array1:",arr1)
print("array2:",arr2)
print("result:", vec_func(arr1,arr2))
```

```
original arrays
[10 20 30 40 50]
[ 2  4  5  8 10]

 vector addition
[12 24 35 48 60]

vector subtration
[ 8 16 25 32 40]

vector multiplication
[ 20  80 150 320 500]

vector division
[5. 5. 6. 5. 5.]

vector dot product
1070

scalar multiplication
scalar value= 5
array= [10 20 30 40 50]
result= [ 50 100 150 200 250]


Numpy. Vectorize method
(Return x-y if x>y, otherwise return x+y)
array1: [10, 4, 20]
array2: [2, 3, 30]
result: [ 8  1 50]
```

In [ ]: