

AI·X 머신러닝 과제

ICT융합 미디어전공

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Week 10

1

```

import numpy as np

ran_nums = np.random.randn(5,4)

array([[ 1.0012685, -1.01879304,  0.1255748,  0.93522189],
       [-0.65161262, -0.73149034, -0.75626702,  0.37649616],
       [-1.43680775, -1.63529073,  0.19422481,  0.72031605],
       [ 0.76946226,  0.66251777, -0.39125624,  0.8365255 ],
       [ 0.45356975,  0.13651889,  0.90206203, -0.08413138]])

[3] ran_nums = ran_nums.reshape(1,-1)
ran_nums

array([[ 1.0012685, -1.01879304,  0.1255748,  0.93522189, -0.65161262,
        -0.73149034, -0.75626702,  0.37649616, -1.43680775, -1.63529073,
         0.19422481,  0.72031605,  0.76946226,  0.66251777, -0.39125624,
         0.8365255 ,  0.45356975,  0.13651889,  0.90206203, -0.08413138]])

ran_nums = ran_nums.reshape(2,-1)
ran_nums

array([[ 1.0012685, -1.01879304,  0.1255748,  0.93522189, -0.65161262,
        -0.73149034, -0.75626702,  0.37649616, -1.43680775, -1.63529073],
       [ 0.19422481,  0.72031605,  0.76946226,  0.66251777, -0.39125624,
         0.8365255 ,  0.45356975,  0.13651889,  0.90206203, -0.08413138]])

[10] ran_nums = ran_nums.reshape(-1,4)
ran_nums

array([[ 1.0012685, -1.01879304,  0.1255748,  0.93522189],
       [-0.65161262, -0.73149034, -0.75626702,  0.37649616],
       [-1.43680775, -1.63529073,  0.19422481,  0.72031605],
       [ 0.76946226,  0.66251777, -0.39125624,  0.8365255 ],
       [ 0.45356975,  0.13651889,  0.90206203, -0.08413138]])

[11] ran_nums = ran_nums.reshape(-1,5)
ran_nums

array([[ 1.0012685, -1.01879304,  0.1255748,  0.93522189, -0.65161262],
       [-0.73149034, -0.75626702,  0.37649616, -1.43680775, -1.63529073],
       [ 0.19422481,  0.72031605,  0.76946226,  0.66251777, -0.39125624],
       [ 0.8365255 ,  0.45356975,  0.13651889,  0.90206203, -0.08413138]])

```

```

ran_nums = ran_nums.reshape(1,-1)
ran_nums.shape

(1, 20)

[14] ran_nums = ran_nums.reshape(2,-1)
ran_nums.shape

(2, 10)

[15] ran_nums = ran_nums.reshape(-1,4)
ran_nums.shape

(5, 4)

ran_nums = ran_nums.reshape(-1,5)
ran_nums.shape

(4, 5)

```

2

```

[12] import numpy as np

ex = np.random.randn(3,6)
ex = ex.reshape(4,5)

```

← 2a. 원본배열의 크기를 고려하지않고 원본배열크기에 맞지않는 크기로 변환하려고했기 때문에 에러가발생
 ↳ 즉, 원본배열의 크기를 보아서는 배열로 변경됨.

```

ValueError                                Traceback (most recent call last)
<ipython-input-12-45dab386df17> in <module>
      2
      3 ex = np.random.randn(3,6)
----> 4 ex = ex.reshape(4,5)

ValueError: cannot reshape array of size 18 into shape (4,5)

```

SEARCH STACK OVERFLOW