**numpy.vectorize**

*class***numpy.vectorize(***pyfunc***,***otypes=None***,***doc=None***,***excluded=None***,***cache=False***,***signature=None***)**[**[source]**](https://github.com/numpy/numpy/blob/v1.17.0/numpy/__init__.py)

Generalized function class.

Define a vectorized function which takes a nested sequence of objects or numpy arrays as inputs and returns a single numpy array or a tuple of numpy arrays. The vectorized function evaluates *pyfunc* over successive tuples of the input arrays like the python map function, except it uses the broadcasting rules of numpy.

The data type of the output of *vectorized* is determined by calling the function with the first element of the input. This can be avoided by specifying the *otypes* argument.

Examples

>>>

**>>> def** myfunc(a, b):

**...**  "Return a-b if a>b, otherwise return a+b"

**...**  **if** a > b:

**...**  **return** a - b

**...**  **else**:

**...**  **return** a + b

>>>

**>>>** vfunc = np.vectorize(myfunc)

**>>>** vfunc([1, 2, 3, 4], 2)

array([3, 4, 1, 2])