**https://www.interviewbit.com/numpy-interview-questions/#freshers**

* + [**1.What is NumPy? Why should we use it?**](https://www.interviewbit.com/numpy-interview-questions/#what-is-numpy-why-should-we-use-it)
  + [**2.Why is NumPy preferred over Matlab, Octave, Idl or Yorick?**](https://www.interviewbit.com/numpy-interview-questions/#numpy-preferred-over-matlab-octave-idl-or-yorick)
  + [**3.How are NumPy arrays better than Python’s lists?**](https://www.interviewbit.com/numpy-interview-questions/#how-are-numpy-arrays-better-than-python-lists)
  + [**4.What are ndarrays in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#ndarrays-in-numpy)
  + [**5.What are ways of creating 1D, 2D and 3D arrays in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#ways-of-creating-1d-2d-and-3d-arrays)
  + [**6.How do you find the data type of the elements stored in the NumPy arrays?**](https://www.interviewbit.com/numpy-interview-questions/#how-do-you-find-the-data-type-of-the-elements-stored-in-numpy-arrays)
  + [**7.How can you reverse a NumPy array?**](https://www.interviewbit.com/numpy-interview-questions/#how-can-you-reverse-a-numpy-array)
  + [**8.How is np.mean() different from np.average() in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#np-mean-vs-np-average)
  + [**9.How do you count the frequency of a given positive value appearing in the NumPy array?**](https://www.interviewbit.com/numpy-interview-questions/#how-do-you-count-frequency-of-given-positive-value-appearing-in-the-numpy-array)
  + [**10.How do we check for an empty array (or zero elements array)?**](https://www.interviewbit.com/numpy-interview-questions/#check-for-an-empty-array)
  + [**11.How is arr[:,0] different from arr[:,[0]]**](https://www.interviewbit.com/numpy-interview-questions/#how-is-different-from)

**arr[:,0] - Returns 0th index elements of all rows. In other words, return the first column elements.**

**arr[:,[0]] - This returns the elements of the first column by adding extra dimension to it.**

**import numpy as np**

**arr = np.array([[1,2,3,4],[5,6,7,8]])**

**new\_arr =arr[:,0]**

**print(new\_arr)**

**import numpy as np**

**arr = np.array([[1,2,3,4],[5,6,7,8]])**

**new\_arr =arr[:,[0]]**

**print(new\_arr)**

* + [**12.How do you multiply 2 NumPy array matrices?**](https://www.interviewbit.com/numpy-interview-questions/#multiply-2-numpy-array-matrices)
  + [**13.How do you concatenate 2 NumPy arrays ?**](https://www.interviewbit.com/numpy-interview-questions/#concatenate-2-numpy-arrays)
  + [**14.How do you convert Pandas DataFrame to a NumPy array?**](https://www.interviewbit.com/numpy-interview-questions/#convert-pandas-dataframe-to-numpy-array)
* [**NumPY Interview Questions for Experienced**](https://www.interviewbit.com/numpy-interview-questions/#experienced)
  + [**15.What do you understand by Vectorization in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#vectorization)
  + [**16.How is vstack() different from hstack() in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#vstack-vs-hstack)
  + [**17.How do you find the local peaks (or maxima) in a 1-D NumPy Array?**](https://www.interviewbit.com/numpy-interview-questions/#find-local-peaks-or-maxima-in-1-d-numpy-array)
  + [**18.How is Vectorization related to Broadcasting in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#how-is-vectorization-related-to-broadcasting)
  + [**19.What happens when the split() method is used for splitting NumPy arrays?**](https://www.interviewbit.com/numpy-interview-questions/#what-happens-when-the-split-method-is-used-for-splitting-numpy-arrays)
  + [**20.What happens when we use the arrays\_split() method for splitting the NumPy array?**](https://www.interviewbit.com/numpy-interview-questions/#what-happens-when-we-use-the-arrays-split-method-for-splitting-the-numpy-array)
  + [**21.How will you implement the moving average for the 1D array in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#how-will-you-implement-the-moving-average-for-the-1d-array)
  + [**22.How is fliplr different from flipud methods in NumPy?**](https://www.interviewbit.com/numpy-interview-questions/#how-is-fliplr-different-from-flipud-methods)
  + [**23.Write a program to convert a string element to uppercase, lowercase, capitalise the first letter, title-case and swapcase of a given NumPy array.**](https://www.interviewbit.com/numpy-interview-questions/#program-to-convert-a-string-element-to-uppercase-lowercase-capitalise-the-first-letter-title-case-and-swapcase-of-a-given-numpy-array)
  + [**24.Write a program to transform elements of a given string to a numeric string of 10 digits by making all the elements of a given string to a numeric string of 8 digits with zeros on the left.**](https://www.interviewbit.com/numpy-interview-questions/#transform-elements-of-given-string-to-numeric-string)
  + [**25.Write a program for inserting space between characters of all elements in a NumPy array.**](https://www.interviewbit.com/numpy-interview-questions/#program-for-inserting-space-between-characters-of-all-elements)
  + [**26.Write a program to repeat each of the elements five times for a given array.**](https://www.interviewbit.com/numpy-interview-questions/#program-to-repeat-each-of-the-elements-five-times)
  + [**27.Write a program for creating an integer array with values belonging to the range 10 and 60**](https://www.interviewbit.com/numpy-interview-questions/#program-for-creating-an-integer-array-with-values-belonging-to-range-10-and-60)
  + [**28.Write a program to add a border of zeros around the existing array.**](https://www.interviewbit.com/numpy-interview-questions/#program-to-add-border-of-zeros-around-the-existing-array)
  + [**29.Write a program for changing the dimension of a NumPy array.**](https://www.interviewbit.com/numpy-interview-questions/#program-for-changing-the-dimension-of-numpy-array)
  + [**30.Write a program for interchanging two axes of the NumPy array.**](https://www.interviewbit.com/numpy-interview-questions/#program-for-interchanging-two-axes-of-numpy-arrays)

**https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#flatten-function-differs-from-the-ravel-function**

1. [**How does the flatten function differs from the ravel function?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#flatten-function-differs-from-the-ravel-function)
2. [**What caused the Overflow error in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#what-caused-the-overflow-error-in-numpy)
3. [**How does NumPy differ from Pandas?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#how-does-numpy-differ-from-pandas)
4. [**How do you calculate the moving average?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#how-do-you-calculate-the%20moving%20average)
5. [**What is the difference between indexing and slicing in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#difference-between-indexing-and-slicing-in-numpy)
6. [**Can you create a plot in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#can-you-create-a-plot-in-numpy)
7. [**Is this possible to calculate the Euclidean distance between two arrays?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#calculate-the-euclidean-distance-between-two-arrays)
8. [**Discuss steps to deal with array objects?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#discuss-steps-to-deal-with-array-objects)
9. [**Which three types of value are accepted by missing \_value argument?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#three-types-of-value-are-accepted-by-missing-value-argument)
10. [**How can you check whether any NumPy Array has elements or is empty?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#check-whether-any-numpy-array-has-elements-or-is-empty)
11. [**Explain the operations that can be performed in NumPy.**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#explain-the-operations-that-can-be-performed-in-numpy)
12. [**Why is the shape property used in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#why-is-the-shape-property-used-in-numpy)
13. [**What is array slicing in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#what-is-array-slicing-in-numpy)
14. [**How is the seed function used in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#how-is-the-seed-function-used-in-numpy)
15. [**How to convert the data type of an array in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#how-to-convert-the-data-type-of-an-array-in-numpy)
16. [**What is the difference between copy and view in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#what-is-the-difference-between-copy-and-view-in-numpy)

### [**Advanced NumPy Interview Questions**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#advanced-numpy-interview-questions)

1. [**Discuss vectorisation in NumPy? How to perform visualisation using NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#how-to-perform-visualisation-using-numpy)
2. [**Discuss uses of vstack() and hstack() functions?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#discuss-uses-of-vstack-and-hstack-functions)
3. [**How is vectorisation different from broadcasting?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#how-is-vectorisation-different-from-broadcasting)
4. [**How can you find peak or local maxima in a 1D array?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#find-peak-or-local-maxima-in-a-1D-array)
5. [**What are different ways to convert a Python dictionary to a NumPy array?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#ways-to-convert-a-python-dictionary-to-a-numpy-array)
6. [**What is the best way to create a Histogram?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#what-is-the-best-way-to-create-a-histogram)
7. [**Can you create strides from a 1D array?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#can-you-create-strides-from-a-1D-array)
8. [**How does NumPy handle numerical exceptions?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#how-does-numpy-handle-numerical-exceptions)
9. [**What is the biggest challenge while writing extension modules in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#challenge-while-writing-extension-modules-in-numpy)
10. [**What is the use of SWIG method in NumPy?**](https://www.hackertrail.com/talent/backend/numpy-interview-questions-answers/#what-is-the-use-of-swig-method-in-numpy)