Common NumPy Methods

Here are some commonly used NumPy methods and their purposes:

1. **np.array()** – Creates a NumPy array.
2. **np.arange()** – Returns evenly spaced values within a given range.
3. **np.linspace()** – Returns evenly spaced numbers over a specified interval.
4. **np.zeros()** – Creates an array filled with zeros.
5. **np.ones()** – Creates an array filled with ones.
6. **np.eye()** – Creates an identity matrix.
7. **np.reshape()** – Changes the shape of an array without changing its data.
8. **np.flatten()** – Converts a multi-dimensional array into a 1D array.
9. **np.concatenate()** – Joins two or more arrays along an axis.
10. **np.vstack() / np.hstack()** – Stack arrays vertically or horizontally.
11. **np.split()** – Splits an array into multiple sub-arrays.
12. **np.unique()** – Finds unique elements in an array.
13. **np.sort()** – Sorts elements of an array.
14. **np.where()** – Returns indices where a condition is True.
15. **np.sum()**, **np.mean()**, **np.median()**, **np.std()** – Perform mathematical operations.
16. **np.dot()** – Dot product of two arrays.
17. **np.transpose()** – Transposes array dimensions.
18. **np.max() / np.min() / np.argmax() / np.argmin()** – Find extrema and their indices.
19. **np.random.rand() / np.random.randint()** – Generate random numbers.
20. **np.save() / np.load()** – Save and load NumPy arrays from disk.