

NumPy is the fundamental package for scientific computing in Python. It is a Python library that provides a multidimensional array object, various derived objects (such as masked arrays and record arrays), and an assortment of routines for fast operations on arrays, including mathematical, logical, shape manipulation, sorting, selecting, I/O, discrete Fourier transforms, basic linear algebra, basic statistical operations, random number generation and much more.

## **APPLICATIONS**

NumPy is used extensively in NASA's James Webb telescope, for example in the calibration pipeline.

ASML uses NumPy extensively in its lithography machines which are at the heart of semiconductor chip fabrication world-wide.

Over 70% of all machine learning projects on GitHub use NumPy

## PLANNED FEATURES

- + Using SIMD instructions for faster single-threaded performance.
- + Making the data type system more easily extensible. This allows better string dtypes, and user-defined dtypes.
- + Complete type annotations for the complete NumPy code base.

## **PROJECT NEEDS**

Documentation on best practices and new tutorials.	\$30,000
Official PyPy support	\$50,000
A CI and packaging engineer	\$100,000



For more information on NumPy!, including our governance structure and project roadmap, please visit

http://www.numpy.org/

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