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| 1. Record Nr. | UNINA9910812719603321 |
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| Titolo | NumPy beginner's guide : build efficient, high-speed programs using the high-performance NumPy mathematical library // Ivan Idris |
| Pubbl/distr/stampa | Birmingham, England : , : Packt Publishing, , 2015 ©2015 |
| ISBN | 1-78528-883-0 |
| Edizione | [3rd ed.] |
| Descrizione fisica | 1 online resource (348 p.) |
| Collana | Learn by doing : less theory, more results |
| Disciplina | 005.13 005.133 |
| Soggetti | Mathematics - Data processing Python (Computer program language) Mathematical analysis |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Includes index. |
| Nota di contenuto | Cover; Copyright; Credits; About the Author; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1: NumPy Quick Start; Python; Time for action - installing Python on different operating systems; The Python help system; Time for action - using the Python help system; Basic arithmetic and variable assignment; Time for action - using Python as a calculator; Time for action - assigning values to variables; The print() function; Time for action - printing with the print() function; Code comments; Time for action - commenting code; The if statement Time for action - deciding with the if statement The for loop; Time for action - repeating instructions with loops; Python functions; Time for action - defining functions; Python modules; Time for action - importing modules; NumPy on Windows; Time for action - installing NumPy, matplotlib, SciPy, and IPython on Windows; NumPy on Linux; Time for action - installing NumPy, matplotlib, SciPy, and IPython on Linux; NumPy on Mac OS X; Time for action - installing NumPy, SciPy, matplotlib, and IPython with MacPorts or Fink; Building from source; Arrays; Time for action - adding vectors IPython - an interactive shell Online resources and help; Summary; |

Chapter 2: Beginning with NumPy Fundamentals; NumPy array object; Time for action - creating a multidimensional array; Selecting elements; NumPy numerical types; Data type objects; Character codes; The dtype constructors; The dtype attributes; Time for action - creating a record data type; One-dimensional slicing and indexing; Time for action - slicing and indexing multidimensional arrays; Time for action - manipulating array shapes; Time for action - stacking arrays; Time for action - splitting arrays

Time for action - converting arraysSummary; Chapter 3: Getting Familiar with Commonly Used Functions; File I/O; Time for action - reading and writing files; Comma Separated Values files; Time for action - loading from CSV files; Volume Weighted Average Price; Time for action - calculating volume weighted average price; The mean() function; Time-weighted average price; Value range; Time for action - finding highest and lowest values; Statistics; Time for action - doing simple statistics; Stock returns; Time for action - analyzing stock returns; Dates; Time for action - dealing with dates

Time for action - using the datetime64 data typeWeekly summary; Time for action - summarizing data; Average True Range; Time for action - calculating the average true range; Simple Moving Average; Time for action - computing the simple moving average; Exponential Moving Average; Time for action - calculating the exponential moving average; Bollinger Bands; Time for action - enveloping with Bollinger bands; Linear model; Time for action - predicting price with a linear model; Trend lines; Time for action - drawing trend lines; Methods of ndarray

Time for action - clipping and compressing arrays

Sommario/riassunto

This book is for the scientists, engineers, programmers, or analysts looking for a high-quality, open source mathematical library. Knowledge of Python is assumed. Also, some affinity, or at least interest, in mathematics and statistics is required. However, I have provided brief explanations and pointers to learning resources.
