



Python Data Science 1 Day Bootcamp

Joshi



<https://www.eventbrite.com/o/python-data-science-group-bootcamp-nyc-affordable-machine-learning-14448368531>

<https://www.meetup.com/New-York-Python-SQL-Bootcamp-Data-Science-Analytics/>

<http://www.qcfinance.in/>

<http://blockchainainyc.com/>

Reference text books

1. Learning python the hard way
2. Python for Data Analysis
3. Python Crash Course: A Hands-on, Project-based
Introduction to Programming
4. Python Data Science Handbook

Difference ways of using Python

Text Editor (Sublime, Pycharm, etc)

AWS Jupyter

Azure notebooks

Local Server Anaconda Jupyter

Using Github

Cloning repositories

Study for Strategy

Getting the feel of the language

Cloning using github

Completing two books

When and Why use functions

When use functions

When to use Class to wrap around all your functions

Creating your library of functions

Repositeros and Schedule for the day

Learning python the hard way review

<https://github.com/ubarredo/LearnPythonTheHardWay>

Python for Data Analysis

<https://github.com/wesm/pydata-book>

Python Data Science Handbook

<https://github.com/jakevdp/PythonDataScienceHandbook>

Python Crash Course

<https://github.com/ehmatthes/pcc>

Resuming on 3:45

Foundations of programming: Python built-in Data types

Control flow statements: If, Elif and Else

Definite and Indefinite loops: For and While loops

Writing user-defined functions in Python

Classes in Python

Read and write Text and CSV files with python

List comprehensions and Lambda

Parsing information with Python

Concept of mutability and theory of different Data structures

Numbers And Math

Variables And Names

Strings And Text

Printing

Parameters, Unpacking,
Variables

Prompting And Passing

Reading And Writing Files

Names, Variables, Code,

Functions And Variables

Functions Can Return

Something

Boolean Practice

Else And If

Making Decisions

Loops And Lists

While Loops

Accessing Elements Of Lists

Branches and Functions

Designing and Debugging

Symbol Review

Lists & Dictionaries

Modules, Classes, And Objects

Object Oriented

Is-A, Has-A, Objects, and Classes

Inheritance Vs. Composition

Python Language Basics, IPython, and Jupyter Notebooks

Built-in Data Structures, Functions, and Files

NumPy Basics

Getting Started with pandas

Data Loading, Storage, and File Formats

Data Cleaning and Preparation

Data Wrangling

Plotting and Visualization

Data Aggregation and Group Operations

Time Series

Advanced pandas

Introduction to Modeling Libraries in Python

Data Analysis Examples

Advanced NumPy

Variables and Simple Data Types

Introducing Lists

Working with Lists

if Statements

Dictionaries

User Input and while Loops

Functions & Classes

Files and Exceptions

Testing Your Code

Data Visualization

Generating Data

Downloading Data

Working with APIs

Web Applications

Getting Started with Django

User Accounts and Styling and Deploying an App

Introduction to NumPy
Understanding Data Types in Python
The Basics of NumPy Arrays
Computation on NumPy Arrays: Universal Functions
Aggregations: Min, Max, and Everything in Between
Computation on Arrays: Broadcasting
Comparisons, Masks, and Boolean Logic
Fancy Indexing
Sorting Arrays
Structured Data: NumPy's Structured Arrays
Introducing Pandas Objects
Data Indexing and Selection
Operating on Data in Pandas, Handling Missing Data
Hierarchical Indexing
Combining Datasets: Concat and Append
Combining Datasets: Merge and Join
Aggregation and Grouping and Pivot Tables
Vectorized String Operations
Working with Time Series
High-Performance Pandas: `eval()` and `query()`
Visualization with Matplotlib
Simple Line Plots, Simple Scatter Plots
Visualizing Errors, Density and Contour Plots
Histograms, Binnings, and Density
Customizing Plot Legends

Customizing Colorbars
Multiple Subplots
Text and Annotation
Customizing Ticks
Customizing Matplotlib: Configurations and Stylesheets
Three-Dimensional Plotting in Matplotlib
Geographic Data with Basemap
Visualization with Seaborn
What Is Machine Learning?
Introducing Scikit-Learn
Hyperparameters and Model Validation
Feature Engineering
Naive Bayes Classification
Linear Regression
Support Vector Machines
Decision Trees and Random Forests
Principal Component Analysis
Manifold Learning
k-Means Clustering
Gaussian Mixture Models
Kernel Density Estimation
A Face Detection Pipeline
Further Machine Learning Resources

Python Programming
Language
Statistical Hypothesis Testing
IPython
Hypothesis-testing
Matplotlib
Numpy
Pandas
Scipy
Python Lambdas
Python Regular Expressions

Regression analysis
K-Means Clustering
Principal Component Analysis
Train/Test and cross validation
Bayesian Methods
Decision Trees and Random Forests
Multivariate Regression
Multi-Level Models
Support Vector Machines
Reinforcement Learning
Collaborative Filtering
K-Nearest Neighbor
Bias/Variance Tradeoff
Ensemble Learning
Experimental Design and A/B Tests

Lists, Numpy Arrays, and Dictionaries (JSON)

What are different type of data structure

Link of the meetup

<https://www.meetup.com/New-York-Python-Meetup-for-Non-Programmers/>