Python for data science

Become operational in python for data science

CONTENT

This training will allow you to become operational in python for data science.

At the end of this course, you will be able to analyse, transform, visualise and exploit data. Therefore, by mastering the main python packages for data science (built-in, numpy, pandas, matplotlib, seaborn, scikit-learn...) you will be completely versatile in python.

All the theoretical concepts studied will also be accompanied by a "red line" use-case, which you will deploy throughout the training.

COURSE OBJECTIVES

At the end of the training, you will be able to:

- Exploit the fundamental base of python (variables, conditions, loops, functions, etc.).
- Read, transform and exploit datasets with pandas.
- Visualize and analyze your data with matplotlib and seaborn.
- Set up simple predictive analysis models with scikit-learn.
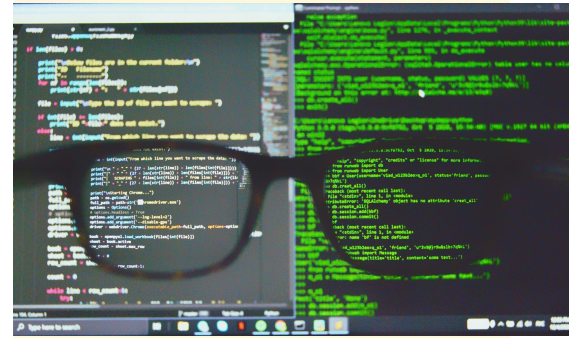
LEVEL ●●○○○

AUDIENCE

Developer, business analyst, data analyst, data engineer, quantitative analyst, statistician

PREREQUISITE

Hardware: Laptop with Anaconda software installed

COURSE INSTRUCTOR

Thibaud Vienne
Expert in Machine Learning

Professor in machine learning at the master 203 Paris-Dauphine and at the engineering school ESIEE Paris

dataLearning

Python for data science

DAY 1 PROGRAM

Step 1: Introduction to python

Why python?

Basic commands

Variable, elementary operations, conditions

Lists, dictionaries, functions

It's up to you: application of a « red line » use case

Step 2: Manipulate data with Pandas

Pandas, data manipulation with python

Reading data

Selection, filtering, joins, concatenation

Statistics, group by, apply, time series

It's up to you: application of a « red line » use case

DAY 2 PROGRAM

Step 3: Data visualisation with Matplotlib

Graphing with Matplotlib

Scatter plots, line charts, bar charts, histograms

Chart customization (title, axes, colors)

Advanced graphics with seaborn

It's up to you: application of a « red line » use case

Step 4: Predictive analysis with scikit-learn

Introduction to machine learning

Predictive models with scikit-learn

Rigorously evaluate your model

It's up to you: application of a « red line » use case

Step 5: Conclusion

Conclusion and summary of the training

To go further

COURSE FEES

Duration 2 days – 14h

Intra   950 €/pers.

Inter   On demand

MODALITIES

30%: theory including interactive quizzes

70%: practical work

3 to 8 participants

Individual or in-house sessions

FOLLOW-UP AND EVALUATION

Quizzes and mini-exercises

Practical work (see program)

Training Evaluation Questionnaire

CONTACT US

Intra-company training: exercises and data can be adapted to the specific business requirements of the participants.