

Data Analysis and Machine Learning with PYTHON

A selection of the best DataCamp courses (and other items)

Gilles MOREL – UTC – February 2022

To choose the best courses fitted to your level and needs :

- Go the entry page (clic on the title link below) to read the description and program
- See the prerequisite before beginning (the order in each sub-lists takes into account pre-requisite)

Python the language and Python for data science

For those who don't have the basics of the Python language, before using ML libraries

- [Introduction to Python](#) (includes introduction to NumPy)
- [Intermediate Python](#) (includes introduction to Matplotlib and Panda)
- [Introduction to Data Science in Python](#)
- [Python Data Science Toolbox \(Part 1\)](#)
- [Python Data Science Toolbox \(Part 2\)](#)

For those who want to go further in Python (special topics)

- [Writing functions in Python](#)
- [Object-oriented Programming in Python](#)
- [Introduction to Databases in Python](#)
- [Introduction to importing data in Python](#)
- [Working with Dates and Times in Python](#)
- [Software Engineering for Data Scientists in Python](#)

Test your Python skills with : [Python programming skill assessment](#)

Data Manipulation and Pre-Processing (preference with pandas better than NumPy)

The basics :

- [Data Manipulation with pandas](#)
- [Cleaning data in Python](#)

To go further

- [Joining Data with pandas](#)
- [Streamline Data Ingestion with pandas](#)
- [Reshaping Data with pandas](#)

Test your skills about [data manipulation with Python](#)

Data Visualization

The basics :

- [Introduction to Data Visualization with Matplotlib](#)
- [Introduction to Data Visualization with Seaborn](#)

Test your skills about [Data visualization with Matplotlib and Seaborn](#)

To go further

- [Intermediate Data Visualization with Seaborn](#)
- [Improving your Data Visualization with Python](#)
- [Visualizing Geospatial Data with Python \(using GeoPandas\)](#)

EDA (Exploratory Data Analysis) and statistics

- [Exploratory Data Analysis \(EDA\) with Python](#)
- [Statistical Thinking in Python – Part 1](#)
- [Statistical Thinking in Python – Part 2](#)

Test your skill in [statistical thinking in Python](#)

Machine Learning (and IoT)

The basics :

- [Supervised Learning with scikit-learn](#)
- [Unsupervised Learning in Python](#)

Test your skills about [machine learning with Python](#)

IoT + machine learning : complete process

- [Analysing IoT Data in Python](#)

To go further :

- [Linear Classifiers in Python](#)
- [Machine Learning with Tree-Based Models in Python](#)
- [Cluster Analysis in Python](#)

Time Series Analysis

- [Manipulating Time Series Data in Python](#)
- [Time Series Analysis in Python](#)
- [Visualizing Time Series Data in Python](#)
- [Machine Learning for Time Series Data in Python](#)
- [ARIMA Models in Python](#)

Introduction to Deep Learning

The basics

- [Introduction to Deep Learning in Python](#)
- [Introduction to Deep Learning with Keras](#)

To go further

- [All the courses Deep Learning with Python tools \(DataCamp track\)](#)

Projects and Jupyter with DataCamp

- [Introduction to DataCamp projects with Python and Jupyter](#)
- [All the DataCamp available projects](#)