

Python Key Concepts for Machine Learning Crash Course

TensorFlow programs are configured using Python. In order to complete the activities in the Machine Learning Crash Course, you will need to be somewhat familiar with Python's syntax, as well as a few additional third-party libraries. **The prerequisite for this course is that you know enough Python to be able to look up and use anything on this list with a quick perusal of the linked documents.**

Basic Python

The following Python basics are covered in [The Python Tutorial](#):

- [Defining and calling functions](#), using positional and [keyword](#) parameters
- [Dictionaries, lists, sets](#) (creating, accessing, and iterating)
- [for loops](#), for loops with multiple iterator variables (e.g., for a, b in [(1,2), (3,4)])
- [if/else conditional blocks](#) and [conditional expressions](#)
- [String formatting](#) (e.g., '%.2f' % 3.14)
- Variables, assignment, [basic data types](#) (int, float, bool, str(ing))
- The [pass statement](#)

Intermediate Python

The following more advanced Python features are also covered in [The Python Tutorial](#):

- [List comprehensions](#)
- [Lambda functions](#)

Third-Party Libraries

Code examples in MLCC use the following features from third-party libraries:

- [Matplotlib](#)
 - [pyplot](#) module
 - [cm](#) module
 - [gridspec](#) module
- [Seaborn](#)
 - [heatmap](#) function
- [pandas](#)
 - [DataFrame](#) class
- [NumPy](#)
 - [linspace](#) function
 - [random](#) function
 - [array](#) function
 - [arange](#) function
- [scikit-learn](#)
 - [metrics](#) module