



TECHNOLOGIES

Python for Data Science - Fundamentals

By Souro (A Technologies)

Revisions

- We give a computer a set of instructions
 - Programming *(program the computer to do tasks)*
 - Instructions -> Code
 - Each Line: Line of code
 - Instructions in a special language
 - Programming language
 - Instructions has rules
 - Syntax rules, Syntax Error
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Python

- High-level
 - Multi-purpose, Widely used
 - ML, Web, GUI, Multimedia ...
 - Guido van Rossum, 1991
 - Further : Python Software Foundation
 - Designed with emphasis:
 - Easy to learn, Coding “literacy”
 - Code readability
 - Concepts in fewer lines of code
 - Well suited for Beginners
 - Also for experienced programmers
 - Automatic memory management
 - Rich expansive library support (*“batteries included” philosophy*)
 - Free and Open-source
 - Interpreted language
 - Check the code line by line
 - Internally converts into intermediate form (bytecodes)
 - Then translate, native language, specific computer to run
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Python 2 & 3

- 2 major versions (2.0:2000, 3.0:2008)
 - Quite different
 - 3 perfect for broad range
 - Python 2 latest : 2.7 (*Last*)
 - Python 3, 3.9 ...
 - Encoding:
 - 2 -> ASCII (English Language)
 - 3 -> Unicode (UTF-8), Other Foreign Languages
 - print, divide, xrange/range, error handling, __future__
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Programming Practicals

- Python 3.X.X
 - Installation and Setup
 - Interpreter
 - OS Wise:
<https://www.python.org/downloads/>
 - Online (I prefer: ideone.com)
 - IDE
 - I prefer: PyCharm
 - Notebook
 - I prefer: Jupyter
 - Virtual Environment
 - Python (I prefer)
 - Anaconda
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Thank you ... Questions?
