Python learning resources

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MOOCs

Title	Notes
Design of Computer Programs	Good coverage of how to organise your code better and advanced techniques 👍
Datacamp	A great set of courses geared towards teaching Python (and R) for data scientists/analysts. Simple tutorials mixed with interactive exercises (NB from Megan S: a lot of people are moving away from datacamp because of how it dealt with and continues to deal with a sexual harassment incident that involved the CEO. This includes a lot of trainers who have released their tutorials on other platforms. You can see a list of alternatives curated here and read more about the situation here. Personally I would like to have this removed from the list, especially as it isn't related to a specific course.)

Books

Title	Notes
Python for Data Analysis	Good intro, written by the author of the Pandas library. A little old now - library has developed significantly since the book was published. New version going to be out early 2017 👍
Effective Python	Good book for understanding the 'Pythonic' way of writing programs - i.e. tips and tricks for how to get the most out of the language. 👍
SICP in Python **from Berkley**	Composing programs course in Python 3. Based on the textbook Structure and Interpretation of Computer Programs by Harold Abelson and Gerald Jay Sussma. Discussion here . See also this: http://cs61a.org/
Automate the Boring Stuff with Python	This book along with a Udemy course of the same name is proving popular amongst our digital archivists.
Python Data Science Handbook	FREE and is a good introduction to the data science end - numpy, pandas etc. .👍

How to: R and python - examples are side by side.	Runs through examples of how to programme in R and python from beginner to Advanced. What's good about this is examples are side by side and us also a useful guide for translating between languages if you know one more than the other.
Fundamentals of Python Programming	Discussion here.

Blogs/Other websites

Title	Notes
Software Carpentry	Since 1998, Software Carpentry has been teaching researchers in science, engineering, medicine, and related disciplines the computing skills they need to get more done in less time and with less pain
Pycon	Videos from the annual Python conference - notable for their very high quality speakers.👍👍
Learn Python the hard way	See discussion here:
Cookiecutter Data Science	A logical, reasonably standardized, but flexible project structure for doing and sharing data science work.👍
Jupyter Notebook tips and tricks	Includes Python keyboard shortcuts, magic commands, and running code from non-Python kernels inside Notebooks.
w3schools python tutorial	Basic intro to python useful for just getting used to syntax getting the basics right. Think is aimed for web development so goes down that road later on.
Python Docs	Tis good!
Learn X in Y minutes (Python3)	Goes through basic Python syntax quite concisely.
Software Design in Python	Set of video tutorials on applying some computer science to python programming. Really good series, think he does 1 a week atm.

Other

Title	Notes
Introductory Python training	Introductory Python training sessions by Tom Ewing at DfT. Great if you're doing Python training in your department 👍👍
Project Euler	Programming problems (language agnostic) that give you practice in various aspects of programming. The different problems are set up to cover various programming techniques and are (roughly) in increasing level of difficulty. 👍
More intro Python training	Some more introductory Python training materials by Robin. Less comprehensive than Tom's
Pandas vs data.table	A cheat sheet for pandas if you are used to working with data.table in R.