

**04**

# Summary and Resources

*Python Programming for Linguists*

Ingo Kleiber, 2020

# Learning Objectives



After completing this workshop, you will be able to ...

- describe what programming essentially is about.
- name and describe some basic programming terminology.
- model simple problems in terms of data structures and basic algorithms.
- write basic scripts in Python in order to solve specific problems.
- utilize third-party libraries such as NLTK, spaCy, and TextDirectory.
- construct and apply basic regular expressions.
- utilize Python for text manipulation.
- utilize Python to perform concordance and frequency analysis.
- automatically annotate texts (PoS, Universal Dependencies, NER) using spaCy.
- scrape web data in order to build corpora (Web as Corpus) using Python.
- compute basic statistics using Python.

# What You Might Have Missed

- Go back to the **early exercises** and attempt them again. Maybe try to optimize or extend your solution.
- Have a look at the ***Command Line Primer*** and experiment in a notebook.
- Have a look at the bonus notebook ***Understanding Classes and Objects***.

# The No-Code Generation

*Do you need to know how to code?*

“Of course, **no-code tools** often require code, or at least, the sort of deductive **logic that is intrinsic to coding**. You have to know how to design a pivot table, or understand what machine learning capability is and what it might be useful for. You have **to think in terms of data, and about inputs, transformations and outputs.**”

(Danny Crichton, TechCrunch)



## The No-Code Generation is arriving

Danny Crichton @dannycrichton / 5:26 PM GMT+1 • October 26, 2020

Comment



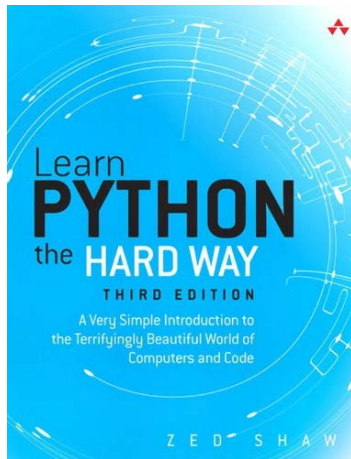
Image Credits: skynesher / Getty Images

In the distant past, there was a proverbial “digital divide” that bifurcated workers into those who knew how to use computers and those who didn’t.[1] Young Gen Xers and their later millennial companions grew up with Power Macs and Wintel boxes, and that experience made them native users on how to make these technologies do productive work. Older generations were going to be wiped out by younger workers who were more adaptable to the needs of the modern digital economy, upending our routine notion that professional experience equals value.

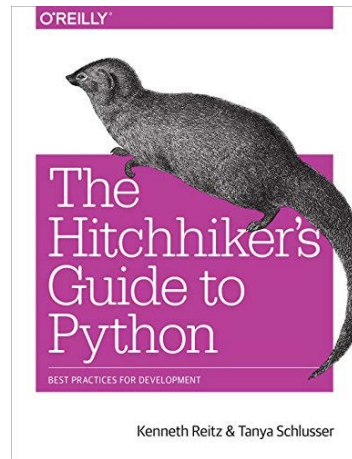
<https://techcrunch.com/2020/10/26/the-no-code-generation-is-arriving/>

# Books

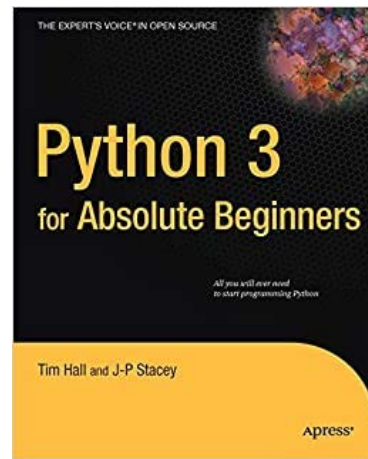
## Some (Careful) **Recommendations**



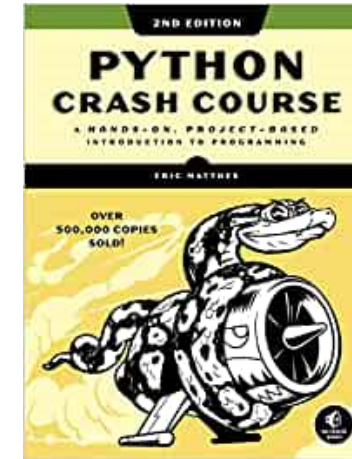
by Zed Shaw  
(Addison-Wesley Professional)



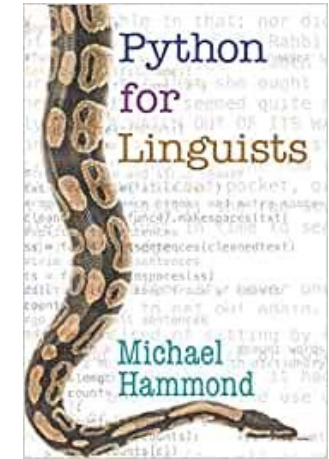
by Kenneth Reitz &  
Tanya Schlusser  
(O'Reilly)



by Tim Hall & J-P Stacey  
(Apress)



by Eric Matthes  
(No Starch Press)



by Michael  
Hammond  
(Cambridge University  
Press)

# Online Courses

- Codecademy
- DataCamp
- Talk Python Training
- Django Girls
- FreeCodeCamp
- fast.ai *A Code-First Introduction to Natural Language Processing*

# Other Resources

- Podcast *Talk Python To Me* by Michael Kennedy
- PyCon (several conferences, see [pycon.org](https://pycon.org) / YouTube)
- Peter Norvig's *pytudes* (on GitHub)
- Stanford NLP's *CS224n: Natural Language Processing with Deep Learning*