



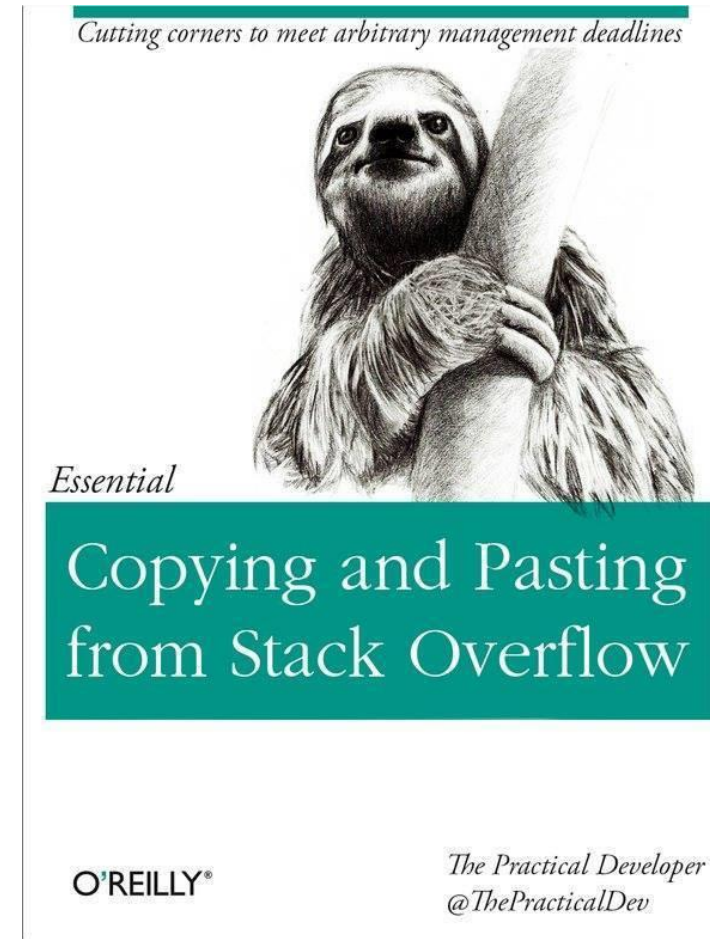
Recap

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Motivation

- ▶ As data scientists, we know that computers are great at aiding in repetitive tasks
 - ▶ We have a vast range of tools available at our fingertips that enable us to be more productive and solve more complex problems when working on any computer-related problem
 - ▶ Yet many of us utilize only a tiny fraction of those tools; In this mini-course, I will try my best to help you become familiar with what kind of tools may be useful in your research



Basics

- ▶ <https://learnxinyminutes.com/docs/python/>
- ▶ <https://gto76.github.io/python-cheatsheet/>
- ▶ <https://github.com/juliangaal/python-cheat-sheet/tree/master/NumPy>
- ▶ <https://scipy-lectures.org/>

Lectures

- ▶ Course website: <https://phonchi.github.io/nsysu-math524/materials> and Lab
- ▶ For the programming patterns: Reference book: *Practical Statistics for Data Scientists 50+ Essential Concepts Using R and Python*
 - ▶ Authors: Peter Bruce, Andrew Bruce and Peter Gedeck
 - ▶ <https://github.com/gedeck/practical-statistics-for-data-scientists>
- ▶ https://github.com/jakevdp/PythonDataScienceHandbook/tree/v2/notebooks_v2
- ▶ <https://dafriedman97.github.io/mlbook/content/introduction.html>

► Pandas and matplotlib

- https://pandas.pydata.org/Pandas_Cheat_Sheet.pdf
- <https://matplotlib.org/cheatsheets/>
- <https://github.com/shervinea/mit-15-003-data-science-tools>

► Statsmodel and Sklearn

- https://scikit-learn.org/stable/supervised_learning.html#supervised-learning
- https://scikit-learn.org/stable/model_selection.html
- <https://scikit-learn.org/stable/visualizations.html>
- <https://scikit-learn.org/stable/modules/preprocessing.html>
- <https://www.statsmodels.org/stable/regression.html>
- https://www.statsmodels.org/stable/generated/statsmodels.regression.linear_model.OLSResults.html
- https://www.statsmodels.org/stable/generated/statsmodels.stats.outliers_influence.OLSInfluence.html

► <http://rasbt.github.io/mlxtend/>

Lab或相關資源的整理!

- ▶ <https://drive.google.com/drive/folders/1dEy4T7IFHbxq8v0g0ViBWZKRbxPbUF98?usp=sharing>
- ▶ https://hackmd.io/@phonchi/stats_learning_ex