note @628

Additional Python Resources Page

List of IDE's:

- Google Colab: colab.research.google.com
- Microsoft: notebooks.azure.com (free for GT students; use your GT email to log in)
- Kaggle: Hosts Jupyter instances
- https://code.visualstudio.com/
- https://jupyter.org/try (can setup to run locally instead)
- pycharm (has built in visual debugger)
- Spyder

[Beginning to Intermediate][Basics up to Data Structures]
https://runestone.academy/runestone/books/published/thinkcspy/index.html

[Intermediate][Data Structures and Algorithms]
https://runestone.academy/runestone/books/published/pythonds/index.html

PYTHON BASICS

Introduction to Python, The Scientific Libraries, Advanced Python Programming and the Pandas Section of Data and Empirics https://lectures.quantecon.org/py/

Regex:

https://youtu.be/abrcJ9MpF60

Chapters 1 - 4 in this book
https://github.com/jakevdp/PythonDataScienceHandbook/blob/8a34a4f653bdbdc01415a94dc20d4e9b97438965/notebooks/Index.ipynb

Then this Pandas tutorial: https://pandas.pydata.org/pandas-docs/stable/getting_started/10min.html

Here are some excellent pandas code examples https://github.com/wesm/pydata-book

Pandas: https://lectures.quantecon.org/py/

PRACTICE PYTHON PROJECTS
https://github.com/tuvtran/project-based-learning#python
https://projecteuler.net/

MORE PYTHON

Work through as many of the examples as you fancy in Chapters 6 and 7 here https://scipython.com/book/

DATA EXPLORATION

https://github.com/StephenElston/ExploringDataWithPython/blob/master/LearningDataVisualization.ipynb

https://www.kaggle.com/c/titanic#description

PYTHON AND DATA SCIENCE

Chapter 5 Python Data Science Handbook https://github.com/jakevdp/PythonDataScienceHandbook/blob/8a34a4f653bdbdc01415a94dc20d4e9b97438965/notebooks/Index.ipynb
https://scikit-learn.org/stable/tutorial/index.html

DATA STRUCTURES AND ALGORITHMS IN PYTHON
https://eu.udacity.com/course/data-structures-and-algorithms-in-python--ud513
https://interactivepython.org/runestone/static/pythonds/index.html

TENSORFLOW
https://developers.google.com/machine-learning/crash-course/

Machine Learning:
http://users.isr.ist.utl.pt/~wurmd/Livros/school/Bishop%20-%20Pattern%20Recognition%20And%20Machine%20Learning%20-%20Springer%20%202006.pdf

MATHS

LINEAR ALGEBRA

Essence of Linear Algebra https://www.youtube.com/watch?v=fNk_zzaMoSs&list=PLZHQObOWTQDPD3MizzM2xVFitgF8hE_ab
Khan Academy https://www.khanacademy.org/math/linear-algebra
https://betterexplained.com/articles/linear-algebra-guide/
Introduction to Methods of Applied Mathematics http://physics.bgu.ac.il/~gedalin/Teaching/Mater/am.pdf
Mathematical Tools for Physics: http://www.physics.miami.edu/~nearing/mathmethods/mathematical_methods-one.pdf
https://www.math.ubc.ca/~carrell/NB.pdf (Linear Algebra Reference)
https://math.byu.edu/~klkuttle/EssentialLinearAlgebra.pdf (Reference)

CALCULUS

Essence of Calculus https://www.youtube.com/watch?v=WUvTyaaNkzM&list=PLZHQObOWTQDMsr9K-rj53DwVRMYO3t5Yr
https://www.khanacademy.org/math/calculus-1
https://www.khanacademy.org/math/calculus-2
https://www.khanacademy.org/math/multivariable-calculus

PROBABILITY AND STATISTICS

https://www.khanacademy.org/math/statistics-probability
http://greenteapress.com/thinkstats/thinkstats.pdf
https://bookboon.com/en/applied-statistics-ebook
http://www.wzchen.com/probability-cheatsheet/

STATISTICAL LEARNING

An Introduction to Statistical Learning https://www-bcf.usc.edu/~gareth/ISL/index.html (Essential)

https://work.caltech.edu/telecourse.html
Elements of Statistical Learning (Extremely useful)
https://web.stanford.edu/~hastie/ElemStatLearn/

SQL
https://www.khanacademy.org/computing/computer-programming/sql

GIT AND VERSION CONTROL

https://git-scm.com/book/en/v2

TAKE THIS CLASS
https://cs109.github.io/2015/index.html

R

https://www.r-bloggers.com/how-to-learn-r-2/

SUPPLEMENTARY MATERIAL

https://docs.python.org/3/tutorial/index.html
https://www.reddit.com/r/Python/
https://www.reddit.com/r/datascience/
https://stackoverflow.com/questions/tagged/python
https://datascience.stackexchange.com/
https://jupyter.org/

How to think like a computer scientist http://www.openbookproject.net/thinkcs/python/english3e/

WRITE A BLOG - https://onextrapixel.com/start-jekyll-blog-github-pages-free/
SLACK GROUPS: https://kagglenoobs.herokuapp.com/
https://datadiscourse.herokuapp.com/

#pin

more_python_exercises

Updated 2 months ago by Chris Kinkade and Kunaal Ahuja

followup discussions *for lingering questions and comments* **1 endorsed followup comment**

Resolved Unresolved

Sekhar Kanuri 3 months ago
Why normalize a vector?
https://stackoverflow.com/questions/10002918/what-is-the-need-for-normalizing-a-vector

Passing argument by reference
https://stackoverflow.com/questions/986006/how-do-i-pass-a-variable-by-reference

Why normalize data?
https://medium.com/@urvashilluniya/why-data-normalization-is-necessary-for-machine-learning-models-681b65a05029

Maximum Likelihood Estimation
https://towardsdatascience.com/probability-concepts-explained-maximum-likelihood-estimation-c7b4342fdbb1

~ An instructor (Kunaal Ahuja) thinks this is a good comment ~

undo helpful | 6

Moorthi Nataraj 3 months ago Thanks for sharing this, super helpful :-)

helpful! | 0

Kriti Bansal 1 month ago Something very basic, but I found this real simple and short explanation on Slicing:

https://stackoverflow.com/questions/509211/understanding-slice-notation

helpful! | 0

Resolved Unresolved

Benson Igarabuza 2 months ago
Anyone used Hugo for blogging as opposed to Jekyll? On the fence on which to use.

helpful! | 0

Resolved Unresolved

Kriti Bansal 2 days ago
https://pe.gatech.edu/sites/pe.gatech.edu/files/Mkg-LPs/OMSA/OMS-Analytics-Spring-2019-Course-List-With-Previews.pdf

helpful! | 0

Class at a Glance *Updated 15 minutes ago. Reload*

133 unread posts

38 unanswered questions

406 unresolved followups

3274 total posts
15076 total contributions
2440 instructors' responses
2009 students' responses

Download us in the app store:

Network at a Glance

2020 Job Status:

1019 total connections

98% profile completed

2 companies viewed

Companies recently added

Worked at: Not set edit

Visa requirement: US citizen edit

Edit career preferences

*Companies are looking to build relationships year round, even when you're not on the market for a job. Set preferences to control which companies you hear from.