## **BOOKS**

- Python Data Science Handbook
  - o Jake Van Der Plas has many great lectures on Youtube worth checking out.
  - o I constantly reference this book.
- Data Science From Scratch
  - From scratch literally means from scratch. This book builds out probability, statistics, linear algebra, and machine learning algorithms using base Python. This book has helped me understand how different algorithms work under the hood.
- Python for Data Analysis
  - More of a reference book than a guide.
  - Written by the creator of Pandas.
- Introduction to ML
  - More introductory book for ML.
  - Good for explaining concepts without fully getting into the math.
- Hands-On ML
  - James and I both use this book constantly. Probably the best pure Machine Learning book for Python
- Deep Learning with Python
  - Chollet is the main developer of Keras.
  - Great resource for Deep Learning
  - Next edition is coming out later this year.
- Green Tea Press
  - Allen Downey is a computer science professor that has a ton of free books. He's a big proponent of using Python to teach various subjects.
  - o His books on Python, Statistics, and Bayesian Statistics are very good.
- Introduction to Statistical Learning
  - <a href="https://www.kdnuggets.com/2020/06/introduction-statistical-learning-free-ebook.h">https://www.kdnuggets.com/2020/06/introduction-statistical-learning-free-ebook.h</a>
    <a href="mailto:tml">tml</a>
    - Has a link to the Python code for the book since the book uses R.
  - Considered the Machine Learning bible
  - Elements of Statistical Learning is the sequel to it that is more intense with math.
  - New edition is coming out soon!
- Grokking Algorithms
  - I think it uses Python 2, but the code on GitHub may have been updated for Python 3.
  - Great book for more general algorithms and data structures which you may encounter on technical interviews.
  - Also does a great job with explaining Big O notation which is good to know.
- Grokking Deep Learning
  - Good book on what is machine learning and what is deep learning
  - Also shys away from using a lot of math and focuses on concepts
- Cracking the Coding Interview

## **COURSES**

- Andrew Ng Machine Learning Coursera
  - Often considered one of the best introductory ML courses out there, I can't recommend it enough.
  - It uses Octave which is an open source version of Matlab but you can find Python examples too.
- Lazy Programmer Udemy
  - Lazy Programmer is a great instructor on Udemy. James and I have both done his courses.
  - Try not to pay full price for the course since Udemy has regular promotions and Lazy Programmer will also have sales.
  - These courses are intense, if you don't meet the prerequisites that the instructor lays out, definitely go meet them first.
- Colt Steele Udemy
  - His Python course is great for learning base Python and some web development.
  - o Colt's MySQL and Git Courses have also been great so far.
- Jose Portilla
  - Jose has some great data science courses, multiple GA instructors have recommended him.

## **YouTube**

- Free Code Camp
  - Some great playlists on here for all sorts of languages.
- 3Blue1Brown
  - Very good for math videos and visualizations.
- PyData
  - Great videos with tons of lectures and demonstrations from various conferences.
- Corey Schafer
  - Corey has tons of great playlists on various python topics.
  - His Object-Oriented Programming videos are some of the best I've encountered.
- Sentdex
  - Sentdex has tons of videos ranging from beginner to advanced Python and machine learning.
- Data Science Courses
  - James recommended this very good resource for different math lectures.
- StatQuest
  - Great channel for any and all things stats.

## **Practice**

- Data Science
  - <a href="https://www.codecademy.com/learn">https://www.codecademy.com/learn</a>
  - https://www.dataguest.io/
  - https://www.datacamp.com/
  - https://www.kaggle.com/learn

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- More "Pure" Coding
  - o <a href="https://leetcode.com/">https://leetcode.com/</a>
  - o <a href="https://www.codewars.com/">https://www.codewars.com/</a>