**Necessary Links**

Sci-kit:

* Intro Tutorial (lows of useful definitions):
  + <https://scikit-learn.org/stable/tutorial/basic/tutorial.html>
* General docs:
  + <https://scikit-learn.org/stable/user_guide.html>
* Unsupervised Learning:
  + <https://scikit-learn.org/stable/unsupervised_learning.html>
* Supervised Learning:
  + <https://scikit-learn.org/stable/supervised_learning.html>

Anaconda (Python interface for your Desktop/Laptop):

* <https://www.anaconda.com/products/distribution>

Kaggle (Cloud-based python interface. IMO better than Google Colab. Also a huge repository to find other people’s code, especially for machine learning and data science):

* <https://www.kaggle.com/>

Github (All of my class materials will be posted on this Github repository. If you have any issues accessing, please let me know):

* <https://github.com/mberghouse/Machine-Learning-in-Hydrology>

**Helpful Links**

Stats review for Data Science:

Intro to Python:

Intro to Machine Learning Concepts:

Random applications of machine learning:

* Unsupervised kNN for anomaly detection:
  + <https://towardsdatascience.com/k-nearest-neighbors-knn-for-anomaly-detection-fdf8ee160d13>
* Digit Classification:
  + <https://scikit-learn.org/stable/auto_examples/neural_networks/plot_rbm_logistic_classification.html>

Python/ML Youtubers I like:

* <https://www.youtube.com/@robmulla>
* <https://www.youtube.com/@NicholasRenotte>
* <https://www.youtube.com/@CodeBullet>
* <https://www.youtube.com/@sentdex>
* <https://www.youtube.com/@TwoMinutePapers/featured>

**Kaggle Links**

Intro Courses

* <https://www.kaggle.com/learn/pandas>
* <https://www.kaggle.com/learn/intro-to-machine-learning>
* <https://www.kaggle.com/learn/intermediate-machine-learning>
* <https://www.kaggle.com/learn/feature-engineering>
* <https://www.kaggle.com/learn/time-series>

Medical Images

* <https://www.kaggle.com/code/cdabakoglu/heart-disease-classifications-machine-learning>
* <https://www.kaggle.com/code/buddhiniw/breast-cancer-prediction>

Titanic Survival Prediction

* <https://www.kaggle.com/code/masumrumi/a-statistical-analysis-ml-workflow-of-titanic>
* <https://www.kaggle.com/code/faressayah/decision-trees-random-forest-for-beginners>

Housing Price Prediction

* <https://www.kaggle.com/code/pmarcelino/comprehensive-data-exploration-with-python>
* <https://www.kaggle.com/code/ryanholbrook/feature-engineering-for-house-prices>
* <https://www.kaggle.com/code/dansbecker/handling-missing-values>
* <https://www.kaggle.com/code/apapiu/regularized-linear-models>
* <https://www.kaggle.com/code/erikbruin/house-prices-lasso-xgboost-and-a-detailed-eda>

Milk Quality

* <https://www.kaggle.com/code/prena0808/predict-the-milk-quality-with-ml>

Water Quality

* <https://www.kaggle.com/code/sasakitetsuya/water-quality-causal-inference-by-lingam>
* <https://www.kaggle.com/code/d4rklucif3r/water-quality-luciferml-76-deployment/notebook>
* <https://www.kaggle.com/code/imakash3011/water-quality-prediction-7-model>
* <https://www.kaggle.com/code/tinakhs/phosphate-cluster-analysis-xgm-lgbm/notebook>

Rainfall

* <https://www.kaggle.com/code/midouazerty/rainfall-prediction-with-6-machine-learn-algo-98/notebook>

Streamflow

* <https://www.kaggle.com/code/marcberghouse/streamflow-prediction/notebook>