

Week 9: Introduction to Machine Learning

For a basic revision of Linear Algebra necessary for data science, review the chapter 8 of the textbook (The Data Science Design Manual by Steven S. Skiena), and its accompanying python notebook in SurreyLearn, called “Lab9_LinAlgebra.ipynb”. This notebook includes some summary on Matrix Operations, SVD and PCA.

For a python linear algebra introduction, more is found in:

<https://web.stanford.edu/class/cs231a/section/section1.pdf>

For a complete book with Python code:

<https://github.com/csalinasonline/LinAlgML>

For Regression, Chapter 9 in the textbook, and the accompanying python notebook “lab9_Regression.ipynb”.

It is interesting to visit the scikit-learn python library for more tutorials:

<https://scikit-learn.org/stable/>

Attempt the Kaggle Challenge to Identify what is being cooked, given the list of ingredients., and discuss on Surrey Learn:

<https://www.kaggle.com/c/whats-cooking>