

# **CS 4661: Introduction to Data Science**

## **Homework1**

### **Due Date: Fri, September 20**

- The goal of this homework is to learn/review Python syntax, and also learn how to work with Jupyter Notebook.
- Please download and install the latest version of Anaconda (Python3.7). Anaconda is a free data science platform that easily installs Python, Jupyter Notebook, and many other popular packages/libraries for data science such as Scikit-Learn, Numpy, Pandas, Scipy, ... that will be later used in this course.
- Open Jupyter Notebook.
- Download the file “CS4661-Lab04-PythonSyntaxReview-Lab1.ipynb” from CSNS, upload this file in Jupyter Notebook, and the open it.
- Review, Understand, and Execute every block (cell) of the code. Feel free to add or change code or mark down blocks in Jupyter.
- Notice the python syntax. Try to learn the \*Pythonic\* syntax and style of coding (i.e. the short simplified form of commands in python). Remember that using pythonic form of coding in job interviews will impress the interviewers!
  - E.g. : `a,b = b,a` will swap a with b
  - E.g. : `a,b = 1,2` is equivalent to `a = 1 ; b = 2`
  - E.g. : `mylist_sqr = [i*i for i in range(5)]`
- Try to make some changes in the code, play with variables, syntax, ... , and run the code each time to see the effect of your changes on the results.
- “Download” your executed code (including your results and outputs) in a new ipynb file, and submit that to CSNS before the due date.