Introduction to Structures and Interpretations of Computer Programs

Basic Python/Data Structures, Course Webpage: https://cs61a.org/

Lecture Instructor	Lecture Info	Instructor Contact
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Material: Macbook, Notebook, Pencils and Erasers.

Installation: You will have to Install the most recent version of Python and Atom (Text Editor). You will also be making a directory for your homework and assignments in your hjmCS folder. We will install it together on the first day of class.

Homework: Working on homework problems is central to your learning the course material. You will have a weekly problem set of approximately 5-6 problems of varying difficulty. The autograder will be provided to check your correctness of the homework. Here is the process of how to do your homework. Homework will be assigned on Thursday, and it will be due Tuesday after. Homework will take approximately 1-3 hours.

A. Unzip hwXX.zip
B. Move your hwXX folder to your hjmCS folder
    A. Open terminal.
    ```
    B.$ mv ~/Downloads/hwXX ~/hjmCS/homework
    ```
C. Open your hwXX.py on your Atom (Text Editor)
D. Fill out the code for each question.
E. If you want to test out for each question, open your terminal and test it out.
    A. Open terminal.
    ```
    B.$ cd ~/hjmCS/homework/hwXX
    C.$ python3 QXAutograder.pyc
    ```
    D. Check your result.
F. Once you are done with all the questions, run the autorgrader.pyc to check if you have finished the homework.
    A. Open terminal.
    ```
    B.$ cd ~/hjmCS/homework/hwXX
    C.$ python3 autograder.pyc
    ```
    D. Check your result.
G. I will be checking your code for composition.

If we have time during class, we could do some portion of the homework during class time.

Helpful Resources:
Python visualizer/tutor: **http://www.pythontutor.com/visualize.html#mode=edit**

Project: You will be having a project, 2048. This project is relatively short, but it certainly provides you the idea of python's capability. The Inspiration for these projects were brought from online, but I have customized them to maximize understandings.

Classes: Each class, we will be going over the lecture notes, solve few problems (on paper and laptop), and go over the homework if we have time. The general schedule is the following:

Date	Topic	Homework	Project
12/18/2017 (7:30-9:30 PM)	Basic Syntax, Error Messages, Functions Part I, While Loops		
12/21/2017 (7-9 PM)	Functions Part II, Environmental Diagrams	HW01 Due: 12/26/2017	
12/27/2017 (7:30-9:30 PM)	Recursion / Tree Recursion Part I	HW02 Due: 1/3/2018	
1/2/2017 (1-3 PM)	Recursion / Tree Recursion Part II, Lists Part I		
1/3/2018 (1-3 PM)	Lists Part II, Trees		
1/8/2018 (1-3 PM)	Project Work Day, Objects Part I	HW03 Due: 1/9/2018	2048 Due: 1/11/2017
1/9/2018 (1-3 PM)	Objects Part II, Linked Lists Part I	HW04 Due: 1/10/2018	
1/10/2018 (1-3 PM)	Linked Lists Part II, Generators, Iterators, Conclusion		

Source:

- The Course Plan / Homework Problem Sets was inspired by John Denero and Paul Hilfinger from the Computer Science Department in UC Berkeley, cs61a.org.
- The Project, '2048' was inspired from Tay Yang Shun, "https://github.com/yangshun/2048-python.