## DSCI-549: Introduction to Computational Thinking and Data Science

# **USC** Viterbi School of Engineering

## **Homework 7**

#### Goals

The purpose of this homework is to learn to define a real data science project including data collection, pre-processing, and analysis steps using project management techniques. (100 points)

### **Assignment**

Complete this assignment in a word document, with sections that correspond to the requirements below. Then submit it on D2L.

Final report (2 pages maximum): Describe the project that you proposed in homework 1 in terms of data science

- 1. Updated Description of the Project
- 2. Elevator Pitch
- 3. Updated Project objectives
- 4. Project scope
- 5. Data analysis and Solution (with updated workflow sketch)
- 6. Outcome of project
- 7. Include as an appendix the original description that you wrote for homework 1 / 5, which you can update it based on comments or new understanding making sure you highlight your changes in red font
- 1. Updated description of the problem These are the questions you posed about the data in the earlier homeworks and your motivation to pose those questions
- 2. Elevator pitch An abbreviated description of the problem (#1 above) summarized in 1-2 sentences.
- 3. Updated project objectives This is a description of the datasets that you will be using, and the pre-processing that you would need to do.
- 4. Project scope This is a brief discussion about things that you would NOT address in your project.
- 5. Data analysis and solution This is the kind of data analysis that you plan to do, and the workflow sketch showing the analysis steps.
- 6. Outcome of the project What you would expect to result from the project (for example a new product, an extension of an existing product, a new recommendation, etc)
- \*\*\*Items 1, 3, & 5 were already part of Homework 5. You should use what you wrote there, updated as needed.

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute <a href="http://dornsife.usc.edu/ali">http://dornsife.usc.edu/ali</a>, which sponsors courses and workshops specifically for international graduate students.

For more information, see the class syllabus and the USC web site.