

**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

Describe the project that you proposed in homework 1 in data science terms. Complete this assignment in a Word/PDF document (max size 12 font, single spacing, 2 – 5 pages), with sections that correspond to the requirements below. Submit the homework on D2L.

1. **Updated project description:** These are the questions you posed about the data in the earlier homework assignments and your motivation to pose those questions.
2. **Elevator Pitch:** An abbreviated description of the problem (#1 above) summarized in 1-2 sentences that is easy for someone not familiar with project to understand.
3. **Updated project objectives:** This is an updated description of what you aim to achieve with the datasets. This includes a description of the datasets that you plan to use, and the pre-processing that you would need to do.
4. **Project scope:** This is a brief discussion about the limitation of your project and the things that will NOT be addressed in your project.
5. **Updated data analysis and Solution (with updated workflow sketch).** This is the data analysis that you plan to do, and the workflow sketch showing the analysis steps. Workflow sketch does not count toward the page limit.
6. **Outcome of 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.)

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**.

*****Items 1, 3, & 5 were already part of Homework 5. You should use what you wrote there, updated as needed.**

IMPORTANT NOTES

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in the Student Handbook <https://policy.usc.edu/studenthandbook/>. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, <https://policy.usc.edu/research-and-scholarship-misconduct/>.

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 <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students.

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