# Problem Statement (20%)

Describe the problem you are solving. Mention specifically:

* why is this problem important or why does it make sense to solve this problem
* what is difficult or challenging about the problem

# Existing Techniques (20%)

Write one paragraph about the existing techniques or algorithms to solve the problem. You should mention at least 2-3 existing algorithms or techniques that are currently being used along with references to their Websites or papers. One of these techniques could be the approach that you are basing your project off or extending in your project.

# Your Approach (50%)

Describe the technique that you are going to use to solve the problem. Mention the following:

* the technique or approach you are basing your algorithm off
* Any additions or extensions you are making to your algorithm to do better than existing techniques – you could tie this to a difficulty or challenge you identified in Section 1 and a limitation of existing algorithms or techniques you mentioned in Section 2.
* Implementation details – what software library or tool you will use (if any), what programming language you will use
* How will you validate your algorithm – test cases you will use, output of your program, how will the output be visualized (with a GUI, by plotting graphs of certain metrics of the problem, etc.) , anything else.

# Bi-Weekly Milestones (10%)

|  |  |  |
| --- | --- | --- |
| **Topic to be Completed** | **Deadline** | **Responsibility of each group member** |
| Proposal Due via Canvas | October 23, 2018, 11:59 PM | Group member names |
| Topic 1:  Topic 2:  … | November 6, 2018 | Topic name 1: Person responsible  Topic name 2: Person responsible  … |
| Topic 1:  Topic 2:  … (milestone report also due via Canvas) | November 20, 2018, 11:59 PM | Topic name 1: Person responsible  Topic name 2: Person responsible  … |
| Topic 1:  Topic 2:  … | December 4, 2018 | Topic name 1: Person responsible  Topic name 2: Person responsible  … |
| Final Project Submission | December 11, 2018 |  |