Project Homework P2: Review of Current Approaches

In homework P1, each team described a real world spatial data analytic problem as well as the corresponding dataset. The goal of homework P2 is to do literature search on existing approaches to solve the problem, and summarize these approaches into a 2-page review.

Requirement for CS 491:
Summarize several common approaches to solve the problem from textbooks or research papers. These approaches should be effective solutions for the problem but are not required to be the current state of the art. In the summary of each approach, please briefly describe several major steps on how this approach work, as well as what are the advantage and (or) disadvantages of the approach. The goal of this homework is to illustrate that the team has understood some ideas on how to solve the problem.

Sample template:
Summary of several common approaches.
Approach 1: major steps; strengthen, limitations;
Approach 2: major steps; strengthen, limitations;
... ...
Conclusion

Requirement for CS 591:
Summarize several common approaches to solve the problem, including the current state of the art, based on reading papers or technical reports. In the summary of each approach, please briefly describe several major steps on how this approach work, as well as what are the advantage of the approach over prior works. Also, please identify some remaining challenges of the problem that the current state of the art approach has not addressed. The goal of this homework is to illustrate that the team has understood the current state of the art approaches to solve the problem, and is able to find space to improve these approaches (e.g., the approaches may be effective in some cases but not others, the approaches may be computationally expensive, etc.)

Sample template:
Summary of several common approaches (including the state of the art).
Approach 1: major steps; advantages over prior work, its own limitations.
Approach 2: major steps; advantages over prior work, its own limitations.
... ...
Critics of existing approaches: where things can be improved.
Conclusion