Bayesian Machine Learning Project Report

Goal: The goal of the project is for you to apply Bayesian machine learning to a real dataset in an advanced way. The project report should show you applied probabilistic reasoning to a nontrivial problem of your choosing.

Instructions:

1. Submit your report on-line.
2. You may discuss this assignment with other members of the class and you may consult on-line and physical references.
3. Reference any material or writing you obtain from other sources using the style of a major professional society (e.g., IEEE, ACM).
4. Clearly show your title and the names of all team members.
5. Your report should be no more than 4 pages excluding references using single-spacing with 10 or 12 pt font.
6. Include relevant graphics that show your results or explain the data. If you have extensive graphics, you can put them in an appendix but discuss them in the text of the report.
7. Provide links to code that you used and a readme file explaining how to run it (do not include code in your report but you may attach it as a separate file if you do not have a link to a github page).

Assignment: Present a summary of the work from your course project using Bayesian machine learning to solve an interesting problem. The report is worth 100 points and will be graded on the demonstration of probabilistic modeling using the following rubric:

1. (20) Problem description
2. (20) Mathematical linkage between the problem and the method(s)
3. (20) Bayesian method(s) used
4. (20) Results and conclusions
5. (20) Writing style and quality - how well your report communicates all of the above elements