

Project Report: Team X

Name of your Challenge Here

Group Member1, Group Member2, Group Member3, and Group Member4

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<http://www.cs.stonybrook.edu/~skiena/591/projects>

1 Challenge

State/define the challenge you have been assigned (half page)

2 History/Background

Summarize the relevant information to properly understand the challenge domain (2-4 pages)

3 Literature Review

Perform an extensive search for sources in the academic literature as well as in the popular literature (web/books). What issues associated with your domain have been under academic study, even if only tangentially related to your specific challenge? (3-4 pages)

4 Data Sets

Do an extensive search for relevant data sets to help you understand the challenge, and/or propose your own ways to get the relevant data. Report on the size (number of rows) and composition (descriptions of the columns) of the data matrices you have assembled to build your models from. Where did the data come from, and how satisfied are you with what you have for your project? (2-4 pages)

5 Observations

Report on interesting things you can learn/visualize from your data set. Include and describe these visualizations. (2-4 pages)

6 Baseline Model

Propose a trivially simple baseline model which is capable of making a prediction responding to your challenge. Experimentally validate what the performance of your baseline model is. (1-2 pages)

7 Advanced Model

Describe your development of one or more advanced models (presumably machine learning-based), and present results from your evaluation environment showing the performance of it against your baseline models. What methods of fitting/data analysis are you using? (3-5 pages)

8 Final Prediction and Conclusions

State your final forecast for your challenge. Discuss any difficulties you had to overcome in building a good model, and fruitful investigations for subsequent groups. (1-3 pages)

Acknowledgments. Here acknowledge any other people who helped with this project.

9 Bibliography

The correct BibTeX entries for the Lecture Notes in Computer Science volumes can be found at the following Website shortly after the publication of the book: <http://www.informatik.uni-trier.de/~ley/db/journals/lncs.html>

For citations in the text please use square brackets and consecutive numbers: [1], [2], [4] – provided automatically by L^AT_EX's `\cite ... \bibitem` mechanism.

Please base your references on the examples below. The following section shows a sample reference list with entries for journal articles [1], an LNCS chapter [2], a book [3], proceedings without editors [4] and [5], as well as a URL [6]. Please note that proceedings published in LNCS are not cited with their full titles, but with their acronyms!

References

1. Smith, T.F., Waterman, M.S.: Identification of Common Molecular Subsequences. *J. Mol. Biol.* 147, 195–197 (1981)
2. May, P., Ehrlich, H.C., Steinke, T.: ZIB Structure Prediction Pipeline: Composing a Complex Biological Workflow through Web Services. In: Nagel, W.E., Walter, W.V., Lehner, W. (eds.) *Euro-Par 2006. LNCS*, vol. 4128, pp. 1148–1158. Springer, Heidelberg (2006)

3. Foster, I., Kesselman, C.: The Grid: Blueprint for a New Computing Infrastructure. Morgan Kaufmann, San Francisco (1999)
4. Czajkowski, K., Fitzgerald, S., Foster, I., Kesselman, C.: Grid Information Services for Distributed Resource Sharing. In: 10th IEEE International Symposium on High Performance Distributed Computing, pp. 181–184. IEEE Press, New York (2001)
5. Foster, I., Kesselman, C., Nick, J., Tuecke, S.: The Physiology of the Grid: an Open Grid Services Architecture for Distributed Systems Integration. Technical report, Global Grid Forum (2002)
6. National Center for Biotechnology Information, <http://www.ncbi.nlm.nih.gov>

10 Checklist of Items to be Submitted for Project Final Report

Here is a checklist of everything the volume editor requires from you:

- ☐ The final L^AT_EX source files
- ☐ A final PDF file
- ☐ A video file with 15-20 minutes footage since the status reel.
- ☐ A link to this file up loaded to YouTube.
- ☐ The powerpoint file you created for your presentation.
- ☐ A website presenting the entire data and report for the project.