

Advanced Project Report Template

Your Name (as it is to appear on commencement program)

An advanced project report submitted in partial fulfillment of the
requirements for graduation with Honors in Computer Science.

Certificate of Approval

This is to certify that the accompanying advanced project report by Your Name (as it is to appear on commencement program) has been accepted in partial fulfillment of the requirements for graduation with Honors in Computer Science.

Your project supervisor's name

Whitman College
May 11, 2022

Abstract

This document illustrates the formatting requirements for a computer science advanced project report submitted to Penrose Library. The abstract should be a single paragraph of about 150 words, followed by a sentence giving the URL for your project source code repository.

The source code for this template can be found at <https://github.com/whitmancsfaculty/advanced-project-report-template>

1 Introduction

This section lays out the problem to be solved and the goals of the project.

Each Whitman College student who is awarded honors in the major must deposit a thesis or similar document at Penrose Library. To be awarded honors in Computer Science, students must undertake an individual extension of the team capstone project and deposit a brief technical report.

Penrose Library prescribes certain formatting requirements for the thesis. As an advanced project report is not a thesis, this document is intended to adapt the thesis formatting requirements to a shorter technical report format consistent with computer science publication norms.

2 Approach

We use L^AT_EX for this template as it is a customary typesetting tool for computer science research. Do not change the margins, typeface, etc. However, do change the section headings below to reflect the content of your report. Appropriate section headings beyond “Introduction” and “Approach” may include “Background”, “Challenges”, “Design”, “Software architecture”, “User manual”, “Algorithm”, “Experimental method”, “Results”, “Discussion”, and so forth. As research methods in computer science vary widely, the section headings will depend on the nature of your project. You should discuss the outline of your report with your project supervisor.

Penrose Library requires you to submit your document in archival PDF (PDF/A) format. We have done most of the steps outlined in Selinger’s guide to creating PDF/A documents using L^AT_EX [13]. However, you will need to add your PDF metadata to the top of `main.xmpdata`.

Moreover, if you download a compiled PDF file from Overleaf (<https://www.overleaf.com>), you may not see this metadata. If necessary, download the source to a lab Linux workstation or to a computer where you have installed TeXworks (<http://www.tug.org/texworks/>), and compile the PDF there.

3 Language, style, and content

The following guidelines for an accessible writing style are borrowed from the CHI Proceedings Format [6].

- Write in a straightforward style. Use simple sentence structure. Try to avoid long sentences and complex sentence structures. Use semicolons carefully.
- Use common and basic vocabulary (e.g., use the word “unusual” rather than the word “arcane”).
- Briefly define or explain all technical terms. The terminology common to your practice/discipline may be different in other design practices/disciplines.
- Spell out all acronyms the first time they are used in your text. For example, “World Wide Web (WWW)”.
- Explain local references (e.g., not everyone knows all city names in a particular country).
- Explain “insider” comments. Ensure that your whole audience understands any reference whose meaning you do not describe (e.g., do not assume that everyone has used a Macintosh or a particular application).
- Explain colloquial language and puns. Understanding phrases like “red herring” requires a cultural knowledge of English. Humor and irony are difficult to translate.
- Use unambiguous forms for culturally localized concepts, such as times, dates, currencies, and numbers (e.g., “1-5- 97” or “5/1/97” may mean 5 January or 1 May, and “seven o’clock” may mean 7:00 am or 19:00).
- Be careful with the use of gender-specific pronouns (he, she) and other gender-specific words (chairman, manpower, man-months). Use inclusive language (e.g., chair, staff, staff-hours, person-years), including the singular “they” as appropriate [4].
- If possible, use the full (extended) alphabetic character set for names of persons, institutions, and places (e.g., Grønbæk, Lafrenière, Sánchez, Nguyễn, Universität, Weißenbach, Züllighoven, Århus, etc.). These characters are already included in most versions and variants of Times, Helvetica, and Arial fonts.

Finally, you should check that your report is rendered correctly as PDF/A by opening it in Adobe Acrobat. Check Unicode characters and metadata as described by Selinger [13].

4 Tables and Figures

All example figures and tables are borrowed from the CHI Proceedings Format [6].

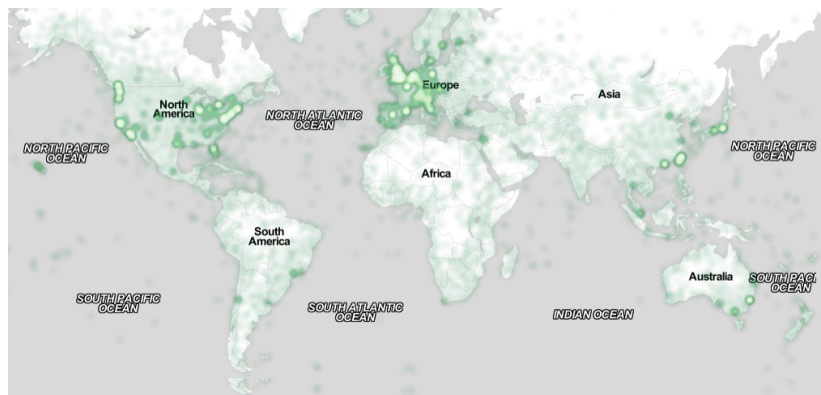


Figure 1: Insert a caption below each figure.

<i>Name</i>	<i>First</i>	Test Conditions	
		<i>Second</i>	<i>Final</i>
Marsden	223.0	44	432,321
Nass	22.2	16	234,333
Borriello	22.9	11	93,123
Karat	34.9	2200	103,322

Table 1: Table captions should be placed below the table. We recommend table lines be 1 point, 25% black. Minimize use of table grid lines.

4.1 Figures

Your document may use color figures (see Figure 1), but figures should be usable when printed in black and white.

4.2 Tables

For an example, see Table 1. Try to minimize the use of lines (especially vertical lines). L^AT_EX will set the table font and captions sizes correctly.

5 Citing and Formatting References

Any references should be published materials accessible to the public. Private communications should be acknowledged in the main text, not referenced (e.g., [Blau, personal communication]). References must be the same font size as other body text. References should be in alphabetical order by last name of first author, then by year and title. Use a numbered list of references at the end of the article, ordered alphabetically by last name of first author, and referenced

by numbers in brackets. For papers from conference proceedings, include the title of the paper and the name of the conference, as well as page numbers and DOI if available.

References should be in ACM citation format: http://www.acm.org/publications/submissions/latex_style. This includes citations to Internet resources [5, 6, 1, 4, 11] according to ACM format, although it is often appropriate to include URLs directly in the text, as above. Example reference formatting for individual journal articles [3], articles in conference proceedings [9], books [12], theses [14], book chapters [15], an entire journal issue [8], websites [2, 5], tweets [1], patents [7], games [10], and online videos [11] is given here. See the examples of citations at the end of this document and in the accompanying BibTeX document.

6 Acknowledgements

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Remember to thank your project supervisor, your team, your client, and any research participants, as well as others who helped or supported you.

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