University of Central Florida
DEPARTMENT OF COMPUTER SCIENCE

COP 4520
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Professor Damian Dechev January 31st, 2019

Report Writing Guidelines

I. Description and Requirements

The purpose of the project is to give you a chance to explore in some depth a topic that is related to the subject matter of this course. The project consists of two parts, an activity and a report.

1. The activity involves the in-depth exploration of a research paper—exploring a topic, reading relevant literature, creating your own implementation of the described algorithms, and running experiments.

2. The final report is a short paper (5–8 pages) describing the results of the activity and should reflect the substantial amount of work that you put into the activity. The paper should make clear what is the problem, the state-of-the art in this research area, a detailed discussion of your implementation, and performed experimental testing. The report will be graded for writing quality as well as for technical content, so attention should be paid to organization, grammar, spelling, and scholarly style. All references used, both text and code, must be properly cited in the bibliography. Your are required to use LaTeX (http://en.wikipedia.org/wiki/LaTeX) to prepare your report.

3. Source code: include with your report the following:

a) the source code of your algorithms along with a brief README file;
b) the source code of your experiments along with a brief README file.

Submission:
All materials should be submitted online using Webcourses as a single zip or rar archive.

Format:
All papers should follow either the ACM or the IEEE Manuscript Format.
A sample IEEE template and further formatting instructions are available here:
http://www.ieee.org/conferences_events/conferences/publishing/templates.html

II. The Report

a) What Makes a Good Report?

Past experience has shown that many UCF students do not know how to write an essay or scholarly paper. I cannot really tell you how to write a paper in this brief handout, but the section title is intended to remind you that a project report is an essay of sorts, and the things you have learned in other courses about logical organization, writing style, use of proper grammar and spelling, and proper methods of citing other people's work all apply here. For more details, you might want to read the following book: *Writing for Computer Science* by Justin Zobel, Springer, 3rd edition.

Like an essay, the project report should have some ideas of your own to report. It should reach some conclusion, and it should give logical arguments and relevant data to support that conclusion. What I do not want in a paper is a simple paraphrasing of somebody else's work. Quoting other people's work as a way to make a point is perfectly acceptable, if properly attributed; simply copying their work, attributed or not, is not acceptable. I want to read about your ideas, your code, and your conclusions, not somebody else's. But of course you will rely on other people's work to support your arguments.

b) Required Format of the Report

Your paper should follow accepted guidelines for scholarly work in computer science. As already stated, all papers should follow the ACM or IEEE Manuscript Format. The paper should begin with title, author, and abstract. The body of the paper should be divided into logical sections appropriate to the structure of the material. Each section should have a numbered section heading. Numbered and unnumbered subheadings should be used where appropriate. Figures and tables should have captions and should be referenced by number. Related work should be cited in the text, and full reference information should appear at the end in a bibliography. Any material copied verbatim should be enclosed in quotation marks as well as being properly cited. The bibliography should contain full citation information, including author, title, year, and publication data.

c) Writing Tools

Most research papers in computer science are prepared using the LaTeX typesetting system. Because this is a computer science course, and because it is educational for you to learn to use the tools of the field, I am requesting that you too prepare your paper using LaTeX and that you prepare your references using the companion tool, BibTeX. Exceptions require the instructor's prior approval and will typically not be allowed.

Compared to papers produced on a typical word processor, the results from LaTeX are much more professional looking. LaTeX automatically numbers pages and sections, automatically produces a table of contents and list of figures (if desired) and generates page headers and cross-references. BibTeX takes information that you put into a bibliographic database and formats it according to commonly-accepted styles. You don't have to remember whether the article title or journal title should be italicized, or where commas and periods are needed—it does all that for you. But the big win comes when typesetting equations and other mathematical notation. LaTeX produces professional-quality typeset equations and formulas rather painlessly. Attempting to do the same in a word processor is clumsy at best, and the results are generally disappointing.