



CS525 - Requirements Engineering
March 18th 2020
Assignment 3 - Weight 6 %
Individual assignment

Task 1. Find at least 10 additional high quality recent research papers from IEEE, ACM, Springer and ScienceDirect only (same guidelines apply for good paper selection as discussed in assignment 2). Since the university is closed, you are ALLOWED to use other websites too to download papers from these 4 publishers. These papers should be on the same topic as you have selected in your assignments 1 and 2 unless you want to change the topic in which case the total should be 25 papers. Change in topic should be discussed with me.

Task 2. Use the IEEE conference proceedings format and write a report of AT LEAST 7 pages. Use whatever text you can use from assignments 1 and 2. NOTE, many students did not meet the 4 page criteria from Assignment 2. This will have an impact on your grade. At least 7 pages in the prescribed format is a must.

Task 3. Follow the following section breakdown strictly.

Abstract - leave empty for now

Keywords - select at least 10 different keywords that you think define your paper

Introduction

Introduction Para 1 - introduce requirements engineering and its importance in 5 - 10 lines (use one or two references)

Introduction Para 2 - introduce the second topic (security, cloud, etc) in 5 - 10 lines (use one or two references)

Introduction Para 3 - introduce the importance of RE in the second topic in 5 - 10 lines (use one or two references)

Introduction Para 4 - identify the 3 major issues that you found in assignment 2. For each issue, use 5-8 lines (use around 3-5 references for each issue).

Introduction Para 5 - discuss the viability / correctness (in your opinion) of the solutions that others have proposed for each of the 3 major issues (3-5 lines for each issue).

Introduction Para 6 - propose one idea to address each of the 3 major issues (one idea for each issue)(2 sentences for each idea). These ideas could be related to the ones already proposed (a fine tuning of someone's idea) or completely new ones. Write that you will elaborate these ideas in this paper. Also write that you will test these ideas (experimentation). Remember, it might not be possible to come up with ideas. In this case, leave this part as is and move on. While you are writing the rest of the paper, you can always come back to it.

Introduction Para 7 - write how the rest of the paper is organized.

Related work

Make three subsections of this section based on the 3 issues. Discuss the positive and negative points of the SOLUTIONS (not the whole paper) proposed in the 25 papers of the 3 major issues. Each subsection should have different papers e.g., the paper distribution could be 10, 10, 5 or 8, 10, 7 or 7, 7, 9 or something else. However the total should always be 25. For each paper, have a separate 6-10 lines para. If you find that there is a paper that can be discussed in two subsections, discuss it in more detail in one subsection and little less in the other subsection. This will increase your total to more than 25. This will result in

around 25 paragraphs for the related work section, each of 6-10 lines. At the end of the paragraph, cite the paper.

While discussing, DO NOT point out those negatives that you are not attempting to solve. HINT: each negative is an opportunity to propose a solution. If you were not able to propose any solution, now is the opportunity: just answer the question: how to remove the negative point. This will be your idea.

Proposed solutions

Make three subsections of this section based on the 3 issues. In each subsection, discuss how you can remove the negative points as pointed in related work. Do not use sub-sub-section. Remember, because you have identified these negative points, you must be able to remove them. Discuss your ideas in depth. Use arguments, examples, formulas, tables, figures as much as possible to elaborate your proposed solution. If you are extending or fine tuning an already proposed idea, provide proper reference. Clearly state what part is yours and what part is taken from others. Spend as much time as possible on these three subsections.

NOTE: you may find that you have enough material to fill up 7 pages with one solution. Do not hesitate to go beyond 7 pages.

Experimentation / validation of proposed solutions

Propose how you can validate your proposed solutions. One 5-8 line paragraph for the solution of each major issue should suffice. Remember, you do not have to conduct the experiment or case study.

Conclusion, limitation, and future work

Para 1 – briefly describe the 3 major issues (2-3 lines each).

Para 2 – briefly describe negative points of the solutions proposed for these major issues in the literature (2-3 lines each).

Para 3 – briefly describe solution that you have proposed. Be clear how your solutions are mitigating the negative points (2-3 lines each).

Para 4 – briefly discuss the negative points of your solutions (2-3 lines for each solution)

Para 5 – leave empty

References

25 references, in strict IEEE format

Grading rubric

Strict adherence to the IEEE template – 1 point

Strict adherence to the section and paragraph distribution – 1 point

5+10+10=25 High Quality research papers – 1 point

Proposed solutions to 3 major issues – 2 points

Validation proposals – 0.5 points

Quality of conclusion, limitation, and future work – 0.5 points

Any kind of plagiarism will lead to an F in this assignment (as a minimum penalty).

Deadline to submit: Monday, April 6th, before 12 Noon via SLATE (the assignment and all referred papers) AND the hard copy of the paper in my office (if the university is closed, slide it under my office door). Assignment details may be discussed in the online QA session of the classes. Individual may ask for one-on-one appointments which will be held via skype or google hangout.