

CMPSC 580
Topics and Research Methods in Computer Science
Spring 2015

Assignment 13
Module Two Proposal
Due Tuesday, 24 February

Write a senior thesis proposal that is related in some way to the topic of “software testing and debugging.” Your proposal should be a *minimum* of five pages long, normally using the `senior_thesis_proposal.tex` file in the Git repository on Bitbucket. You will also need to create a `.bib` file for your references (or simply modify the file `senior_thesis_proposal.bib`).

Choose a descriptive and accurate title for your proposal. Provide a one-paragraph abstract that summarizes the essential points of your proposal.

Your proposal should cite multiple scholarly resources for your thesis topic and related fields—books, journal and conference articles, technical reports, etc. The full details about these resources should be formatted using `LATEX` and should appear in the “References” section of your paper.

You may alter the section headings in the template if a different organization seems more suited to your topic, but your proposal should still contain the same information such as motivation and background, review of prior work, method of approach, evaluation strategy, and schedule.

At least one portion of your proposal should include a *mathematical formalization* of some aspect of your project. This need not be as elaborate as the formal definitions in the papers we read, but there should be some attempt to assign variable names to the different categories of data you will be working with, or to define the meaning of a test case and a test suite, or to make concrete some other component of your proposal. Here is a simple example:

Example: Let P be the current population consisting of individuals p_0, \dots, p_{n-1} , where p_i consists of k binary digits $b_{i,0}, \dots, b_{i,k-1}$.

Submit a signed hard copy in class on Tuesday, 24 February, and also commit your `.tex` and `.bib` files to the homework repository you have shared with the faculty (preferably in a subfolder with a name like “assignment13” or “moduleTwoProposal”).