Dear ECE120 students,

My name is Bei Pang, an undergraduate working with Professor Lumetta. Our group has developed a tool that provides computer-based feedback on C program correctness. The tool has been available in ECE220 for several semesters, and is now becoming a regular part of the class.

In order to give you an opportunity to practice what you have learned about C in ECE120 and to give you some advance experience with the tool, I have put together a set of exercises aligned with the ECE120 material each week.

PLEASE NOTE THAT THESE EXERCISES ARE COMPLETELY OPTIONAL AND HAVE NOTHING TO DO WITH YOUR GRADE IN ECE120. You will not lose any points if you choose to ignore them completely. Nor will you gain any points in the class for having done them. As with the online tools for representations, C analysis, and truth tables, they are designed simply to help you gain more experience with C.

One unique aspect of the exercises that I have prepared is that each of you will have a distinct exercise. The requirements and specification for your personalized exercise varies, but the skills required and the difficulty level are identical.

The automated feedback tool to provide you with feedback on your code whenever you commit a version to your repository through subversion (SVN, as in Lab 1). If you choose to volunteer, we will distribute the exercises to you through SVN. Whenever our server detects a recently committed revision of your exercise, it will run the testing tool on your code. If there are bugs in your code, we may be able to generate test cases that reveal these bugs to you and help you to correct your program.

However, because our system is an experimental research platform, the tool's failure to find a bug in your code does not guarantee that your code is completely correct. The problem is also a fairly difficult one, so if our tool does not find a bug in about 5 minutes, it gives up. In such a case, it may be that your code is too complex to analyze (remember the Halting Problem?). Generally, however, our tool has been able to give feedback on ECE220 machine problems within a few minutes, even under load near the class’ deadlines.

Again, these exercises are completely voluntarily, and your choice to participate or not to participate will not affect your grade in ECE120. If you choose to enroll, please use the link at bottom to sign up. We will monitor the class’ use of the tool and analyze these results to determine whether the problems have appropriate difficulty and whether they are useful in helping students with C programming.

Here is the signup form:
https://goo.gl/forms/tVm9EFwc4zG26B6E3

If you want to participate, please sign up by the end of the day on Thursday 8 September to ensure that you get the first exercise in a timely manner. You are welcome to join in later, of course, but exercises will only be added to your Subversion repository after we add you to our list.

If you have any questions regarding to this project, feel free to email me at beipang2@illinois.edu and/or Prof. Lumetta at lumetta@illinois.edu. I will try my best to answer emails addressed to me within 6 hours.

Thanks,
Bei