18-645/SP07: How to Write Fast Code

Assignment 7

Due Date: Fr Mar 28 6:00pm

http://www.ece.cmu.edu/∼pueschel/teaching/18-645-CMU-spring08/course.html

Homework submission. *Submit the homework as pdf. Name your file '18645-assign7-userid.pdf' where 'userid' is your andrew user id. The .pdf file must include all plots and figures. Do not put the .pdf file in a zip or tar archive - attach it separately. Send it to <schellap+18645-assign7@andrew.cmu.edu>. In addition to the electronic copy, you must also submit a print-out of your pdf to the TAs at PH-B10 or to Carol Patterson at PH-B15.*

This week you will continue your research project. At this point you have already a straightforward implementation and its performance. The goal is to improve the performance using techniques from the class or techniques that your project advisor (one of Fred, Vas, Franz, Markus, as listed on the course website) suggested.

1. Write a short summary (about 1/2–1 page) describing what you did in this week in your research project.
2. After that summary add at least one performance plot. The plot contains the line from your straightforward implementation and new lines (at least one) corresponding to the new (hopefully faster) versions that you have. Follow the guide to benchmarking. This includes a discussion of the plot.
3. At the end add 2 or 3 sentences on what you plan to do next.
4. So the total length of the document will be about 2 pages.
5. Feel free to get in touch with your project advisor for problems and questions (e.g., in the office hours).
6. The above tasks may be slightly different in some research projects.