

CS 385
Semester Project:
Idea approval by Fri, Sep 19, 1pm

Prof. Dietrich

Assignment

- If you haven't done so already, read Part VI in *GPU Gems 3*, or the PDF from *GPU Gems 2* on the course web site, the CUDA-related pages at www.nvidia.com, and the General Purpose GPU computing page at www.gpgpu.org.
- Based on that reading, seek out a project to be done for up to 3 students total. Keep in mind that each student must contribute to the content of the project. Some ideas for CUDA-based projects are implementations of parallel algorithms for sorting (e.g. radix sort), cryptography (password-cracking, hash functions, factoring, pseudo-random number generation), simulations, etc. Some projects to be found on the nVidia site may be commercial with closed source. If you feel you could rewrite one of those yourself, feel free to suggest it. If a similar project for your project idea already exists in source code, consider suggesting an improvement to it in the form of complementary functionality.
- The platform for the project will be either the nVidia FX570 card in the Cybersecurity Lab machines or the nVidia FX570M card on the HP laptops that some of you own. Eventually, the code must compile and run on the reference host (equipped with an FX570 or similar card) under Linux using CUDA 1.1 or CUDA 2.0.

You must:

- get the general concept approved by Friday, Sep 19, 1pm.
- sketch out the proposal and later submit it by Friday, Sep 26, 1pm. A proposal outline will be provided soon.