Rensselaer Polytechnic Institute
Department of Electrical, Computer, and Systems Engineering
ECSE 6969: Computer Vision for Visual Effects, Spring 2014

Project Proposal: due Monday, March 17th, at the beginning of class.

In the second half of the semester, you will create a visual effects video from your own real footage, resulting in a video of at least 30 seconds that leverages at least three of the concepts from the class. Since this is expected to be a major project that you work on throughout the semester, you will submit a progress report in a few weeks to keep you on track. The overall project grade will be computed as 10% proposal (this assignment), 20% progress report, 35% final report, and 35% project evaluation.

The project is meant to be creative, not just a lab demonstration of an algorithm. You might consider making a music video, planning a short live-action video, remixing or reprocessing already-shot footage from TV shows or movies, or recording an installation/performance that includes real-time visual effects. The video doesn't need to be wall-to-wall VFX shots, but (for example) could contain three separate shots of 1-2 seconds each that were synthesized using some combination of existing software and your own code.

The proposal for your project should be a short document that covers:

- What are the effects that you hope to create in your video? How do you think the visual effects will support the narrative of the video? (that is, why are the effects you propose suitable to the context?)

- How are the effects related to one or more of the concepts in the book/course? What other related work is there from the technical or artistic literature that is related to your idea? (research papers, examples of similar effects in TV, movies, commercials).

- Where will you collect your raw image/video/audio data from?

- What software do you anticipate using to accomplish your goals? What type of coding will need to be done to accomplish the effect? Note that I don't want to see projects that are entirely composed of plugins/existing code- some sort of hand-written code is important to get "under the hood".

- What is your strategy/plan of action for realizing your conceptual idea? That is, what tasks need to be performed? What is the rough schedule for these tasks? It is important to be realistic in this step. You shouldn't propose a highly complex project if you have no idea how to realize it.

While I'm not going to hold you to every aspect of your proposal, you should be as careful and realistic as you can. This isn't the kind of project that you can leave until a few days before the due date (and remember it counts for 40% of the grade). The projects for this course should be done individually.

I'll review the proposals and let you know if I forsee any problems. In addition to the book, you might look through the proceedings of recent CVPR, ICIP, or SIGGRAPH conferences to get inspiration.