

1. **Team Members:** Robert Hughes
2. **Describe the application:** The application that I have found is a simple ray tracing algorithm the one that I found. It is not perfect, there are some issues with the shadows and one of the spheres in the image is not perfectly opaque. However the serial program is solid and is a great foundation to start with. Basically this program is a minimalistic ray tracer that shows the techniques of ray tracing. Ray tracing is a rendering technique that is used by tracing the path of light, in a simulation, to generate an image. It is the heart 3d games computer generated images. The
3. **Discuss the Effort**
 1. I have already found a serial program that I would like to use for the basis of this project. I may need a bit of tweaking to be perfect but as is it is pretty good. Even if this specific one does not work out there are many other serial ray tracing programs out there that I could utilize.
 2. I do not have a lot of experience with ray tracing but the program I have looked at is a fairly basic example of ray tracing. It does not use anything that is very different just a couple odd functions. It will be a learning experience and I think that it is definitely possible.
4. **Benefits:** I expect to see a faster finishing time of the image that we are rendering. Ray tracing can be a computing intensive and by parallelizing it we should see a much faster speed up.
5. **Experimentation:** I will be rendering a couple images using both the parallel and the serial code and looking at the speedup achieved by the parallel code. I will see if there is any difference in the final product which there should not be, and then I will judge if the parallelization was successful. I think that this project is definitely doable and will be very interesting.