CS 550 -- Fall Quarter 2020
Paper Analysis Project

100 Points

Due: December 8, 23:59:59 – no Bonus Days

Note:
This project is for CS 550ers only!
CS 450ers are welcome to do it, but it won't count for anything.

This page was last updated: September 20, 2020

Introduction
The project requires you to read a computer-graphics-related paper and write a 5-page analysis of it. I have collected several possible papers for you to consider. Here is the list:

A Class of \( C^2 \) Interpolating Splines
Augmented Airbrush for Computer Aided Painting
Automatic Structure Synthesis for 3D Woven Relief
Chemomechanical Simulation of Soap Film Flow on Spherical Bubbles
Conformal Mesh Deformations with Möbius Transformations
Elastic Textures for Additive Fabrication
Fast Tetrahedral Meshing in the Wild
Kinetic Shape Reconstruction
Microstructures to Control Elasticity in 3D Printing
N-Dimensional Rigid Body Dynamics
Neural Subdivision
One Shot 3D Photography
Realistic Biomechanical Simulation and Control of Human Swimming
RoboCut: Hot-wire Cutting with Robot-controlled Flexible Rods
Semantic Shape Editing Using Deformation Handles
Simple and Scalable Frictional Contacts for Thin Nodal Objects
Space-time sketching of character animation
Variable-width Contouring for Additive Manufacturing

You can also find your own paper, but it must be a real "research" paper, not a Powerpoint presentation, an article, or a blog entry. Also, I must approve it before you go too far in reading and analyzing it.

You do not need to understand or be able to explain the equations in the paper.
Just understand the general themes of the paper -- what they are doing, why they are doing it, how they are trying to do it, anything that relates to what we have been doing in class, etc.
The 5-page Paper You Submit Must at Least Cover

1. What is the general theme of the paper you read? What does the title mean? What are they trying to do? Why are they trying to do it? (I.e., what problem are they trying to solve?)
2. Who are the authors? Where are they from? What positions do they hold? Can you find out something about their backgrounds?
3. What did the authors do in the paper?
4. What conclusions did the paper draw?
5. What insights did you get from the paper that you didn't already know?
6. Did you see any flaws or short-sightedness in the paper's methods or conclusions? (It's OK if you didn't.)
7. If you were these researchers, what would you do next in this line of research?

You can (and should) copy-and-paste a key image or two from the paper to help explain what it is about. *Do not make these images huge in an effort to consume what should have been writing space!*

The line spacing needs to be 1.5 and the font needs to be 11. (I.e., be reasonable.)

Do not use huge margins.

There needs to be a cover page, and, no, that doesn't count as one of the 5 pages...

**Turn-In:**
This paper needs to be turned in as a PDF file on the Teach system. It is due 23:59:59 on the listed due date.