

Kaleb Wells Individual Capstone Assessment

Project Perspective

For me this project is about creating something new that has real value.
This project is centered around Gaussian Splatting which is a game changing technology.
The technology is still in its infancy which means the door is wide open for growth.
Through my collective experience I have been able to find an interesting area of growth.
It is challenging to work with something so new, but I find that exciting.
I feel lucky to explore what is possible with this technology.

Application of Collective College Experience

College Curriculum

My experiences at the University of Cincinnati will help guide the development.
The two classes that I expect to be the most helpful are Programming Languages (CS3003) and User Interface (CS5167).
Programming Languages is a fundamental course but it applies to every project, including this one.
Specifically, I will have to read the Unity specific shader language spec to write it.
User Interface is particularly relevant to this project due to each feature requiring a UI.
I have only mentioned these two classes but almost all my classes should be of some help.

Co-Op Experiences

My co-op experiences have helped me select this project and given me the skills to work on it.
One rotation at MSA Safety I was on a Devops team where I got to experience designing new features for developers.
That experience is exactly what I will be doing in this project.
My previous and last rotation was at Kinetic Vision where I got to work on Gaussian Splatting.
During my work with the technology I found that what I wanted did not exist.
Now I can build exactly what I think should exist using my experience.

Motivation and Approach

Motivation

Personally I find Gaussian Splatting to be stunning and there are many things I like about working with it.
I think it is amazing that we can capture reality in 3D.
I've created some interactive applications using the technology and they were all mind blowing.
I want to enhance what people can build so we all can share new experiences.
Working with this technology applies almost everything I know in a satisfying way.
Gaining more experience with this technology will also help me be able to work more in the space.

Approach

Using my experience my approach will be to spend a lot of time ironing out the design.
I have always found on co-op that spending more effort on design was well worth the effort.
I plan to create many sketches of different UIs and diagrams for code.
So, part of my vision of success is a clear well thought out design.
If I can create an extensible/modular design and implement around three new features I will be satisfied.
I will only be disappointed if I don't learn something new.