Individual Capstone Assessment

Aidan Sorensen

My senior design project is going to be a video game of some sort that uses decisions made in the game that come back long term to influence the structure and outcome of the game. Overtones of conservation, environmental, but also a fun interactive game. We are a group of 3 people and want to use computer science to make a clever game that also incorporates our creative sides that have not really been used that much in the last couple years. We’ve explored procedurally generated landscapes and other procedurally generated aspects to add algorithm development and computation to the project.

My college experience has introduced me to the many varying studies that make up game design. There are a lot of things that I am not good at, and want to improve or develop my skills in. Themes, storytelling, different art styles, and game programming that computer scientists are exposed to but not really focused on. I also feel confident in building a game very programmatically with a good framework. I’m definitely going to take a lot from C and Python, and write a lot in C#.

My coop experience definitely has helped me develop my purpose and helped me realize what is important to me. I worked at First Solar in development engineering and really enjoyed working in renewable energy. At MTRI I learned a lot about the research process and a lot of different roles that programmers can fulfill. Mathematics, scripting support, software development. I was exposed to all of these things and I’m more confident in different roles that I can fill that might not be totally software development or back-end work. I’m more fulfilled by work that exposes me to other professions and perspectives. For instance, I really enjoyed working with environmental professionals and mathematicians. The mathematicians have different values on how computation should be done, but as a programmer I have a different understanding of how computers can be used for mathematics. These perspectives helped me learn a lot more deeply about the topics that were being researched and I really enjoyed it. I also really enjoyed working with environmental engineers, biologists, and people working on data analysis from a purely research standpoint. A lot of the analysis that I did at First Solar was very different from this. Working on small datasets from my own experiments at First Solar is a totally different experience from using very large datasets from years of research on one topic.

My motivation for making a game comes from multiple places. For much of my life, I’ve loved playing video games and I’ve always wanted to learn about the game design/development process. So for me, this is a project that is a point of enjoyment for me. For many years studying CS, there haven’t been a lot of really FUN projects that I drew personal inspiration from. On a similar note, I also really want to develop my artistic and inventive side by creating something. I think my group shares very similar values in this regard, and we’re excited to make a video game that pulls from our interests.

In terms of implementation, we’re going to spent a lot of time on ideation and storyboarding, as well as learning game engines and deciding what kind of algorithms we want to use to make a meaningful game that also uses our school/coop computer science skills. It’s pretty well known that game design can take years and years to flesh out, so a focus of the first semester is to get a strong structural base for the game and focus on art, music, modeling, and things like that in a secondary fashion. As much as I’d like to get the art first and make a game from that, this is not really the point of the project.