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Cart 263 - Creative Computation II - Winter 2024

2024 -04-12

Reflective Essay

Reflection on starting relationship to creative coding at the start of this course

At the start of the Creative Computation 2 course, I already had previous knowledge from Creative Computation 1 from the fall 2023 semester. While I had some prior understanding, engaging in various projects this semester served as a valuable refresher, reinforcing the concepts I had previously studied and enhancing my comfort level with using them. This was very helpful as I was already aware of the ways I can incorporate each in my project. Although I was familiar with various topics in creative computation, this semester introduced me to an array of new skills previously unexplored. This prior familiarity allowed me to approach the course with confidence, enabling me to quickly adapt to new concepts and dive deeper into the material from the onset.

At the beginning of the course, I was unfamiliar with the Phaser game engine compared to my past experiences solely with the p5 library. This transition presented a learning curve as I navigated the nuances of incorporating this new tool into my projects. However, learning about this new game engine really opened new possibilities for my projects, which is why I am using the Phaser game engine for my final game project.

Initially, my focus gravitated predominantly towards the technical and programming aspect of the assignments, as I am still a novice programmer seeking improvement. However, as the course progressed, interactions with my teaching assistant and observing my peers' works highlighted the importance of embracing the creative dimension of my projects as an art student. Reflecting on my experiences, I realized the importance of infusing innovation and thinking

outside the box into my creations. This insight led me to change my approach, focusing on crafting games and projects that not only demonstrate technical skills but also possess artistic resonance, integrating surprise elements to captivate audiences.

Current state of knowledge and potential

Exploring new programming experiences in the course has been an exhilarating journey, particularly in connection with my personal approach to creativity. Learning to utilize Speech output and input with p5.speech, experimenting with Machine learning models through ml5, and delving into Game engines with Phaser 3 have been significant highlights. These newfound tools have not only expanded my skill set but also fueled my enthusiasm for creative computation.

I have found a sense of comfort in working with the Phaser game engine, having completed two projects this semester using it. Although initially challenged by navigating its documentation and locating specific answers, I have adapted my approach and become more adept at utilizing the engine to bring my ideas to life. Using Phaser has enriched my projects, enabling me to introduce interactive elements such as physics and dynamic animations, thus facilitating more expressive and engaging experiences.

Exploring Speech output and input with p5.speech has been particularly exciting. The prospect of incorporating voice commands into games opens up innovative possibilities and has the potential to enhance accessibility of games for a wider audience. Additionally, delving into Machine learning techniques, including the camera object detector and hand pose, has been both eye-opening and challenging. Despite encountering technical hurdles such as slow performance on my PC, the creative potential offered by these tools is undeniable.

Overall, I have found myself increasingly comfortable with these new tools, particularly with the Phaser game engine, which was entirely new to me before this course. I am eagerly looking forward to leveraging my newfound skills in creating my final project, particularly with the creative freedom and potential for innovation that Phaser offers.

Big Ideas to pursue in the future

Looking ahead, I am excited to delve deeper into the diverse world of game engines, each offering its unique capabilities and possibilities. Having gained familiarity with the Phaser game engine and its capacity to facilitate creative projects throughout this semester, I am eager to explore additional engines that can further enhance my skills. Whether it entails exploring the versatility of Unity or delving into the complexities of Unreal Engine, I believe each engine presents a wealth of opportunities for innovation and creation.

In the realm of game development, I am particularly drawn to the idea of multi-sensory experiences. Beyond traditional visual elements, I am intrigued by the potential of integrating audio and video inputs to craft immersive gameplay encounters that engage multiple senses. From incorporating dynamic soundscapes that react to player actions to integrating gesture-based interactions using video input, the possibilities are indeed boundless. Observing my friends and family play my voice jam or AI jam games and witnessing their deep interest and immersion in the experience, I am convinced that this approach can significantly impact the audience. Not only does it enhance player immersion, but it also fosters deeper engagement and emotional resonance.

Furthermore, as I refine my skills through practical experience, I'm keen to explore fresh opportunities where creative computation intersects with multimedia art. Enrolling in additional courses that merge these disciplines offers the opportunity to push the boundaries of expression further. I am particularly interested in exploring how creative computation can be seamlessly integrated into public art installations, especially given the significant interest in such installations in Montreal. I envision scenarios where machine learning algorithms and audio-visual inputs, much like those incorporated into the game projects we created, are also integrated into digital art installations within urban landscapes, inviting active engagement from passersby. This journey will not only improve my skills but also expand my creative horizons, introducing new opportunities for expression and interaction.