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CART 253 section A Creative Computation I

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### Post-reflection

Since the beginning of the semester, my understanding of programming has changed significantly. The main element that has changed since my first week in the course is how foreign programming seemed to me. I was concerned that I would not be able to keep up with the course because I had no prior coding knowledge. At first, even the most basic concepts seemed intimidating. I had difficulties understanding how conditionals and variables worked. I assumed coding was not for me because I was more creatively driven than logically oriented.

Today, at the end of the course, my relationship with programming has changed significantly. I think of coding as a method of experimentation and creative problem-solving. The most significant change is that I have become comfortable reading and writing code. Elements such as variables, functions, arrays, loops, objects, and conditionals no longer feel so foreign to me. I now know how they combine to form interactive systems, and I can use these concepts to create basic games. I can add conditions to my code using if statements, and I can avoid creating long blocks of code by using arrays. I can use arrays, variables, conditionals, and more to add complexity, control movement, and make animations. I have seen how objects allow me to build complex behaviour and visual qualities in an organized way. Many of these concepts were

overwhelming at first, but learning them through p5.js helped me understand how to use them to achieve the effect I want.

My view of programming and my creative practice has also changed dramatically. I now see that programming and creativity are not as different as I first thought they were. Before this course, I didn't realize that code could be a medium for play, experimentation, or personal expression. Now, I understand that coding allows me to create interactive artworks that respond to input and develop systems that evolve over time. I consider coding another medium to express and explore my creativity in a way that differs from traditional art. While I can explore color, shape, and texture through traditional art, coding lets me examine these elements along with the interactions and movements of the elements in my code. It provides a unique environment for me to explore my imagination and the endless possibilities of programming.

I realize that I am no longer confined to static forms of art. As an artist who codes, I can now create movement, behavior and rules. I can create a system and let it run, resulting in emergent visuals that evolve overtime. This has made it possible to think imaginatively in entirely new ways. Instead of drawing everything by hand, I can write a set of instructions and allow the computer to collaborate with me. One of the most significant changes in my creative thinking has been the shift from manually controlling every aspect to creating systems that are able to follow instructions that I set.

Even with the improvement in my understanding on programming, there are still areas that challenge me. Organizing more complex systems is one of the challenges. I can write functional sketches, but when a project starts becoming larger, I sometimes lose sight of where things belong or how various elements interact. I want to continue improving how I organize code, especially using states and objects. Another challenge is debugging. While my ability to interpret error messages has gotten better, I still get frustrated when I am unable to figure out why something is not working. I see these difficulties as goals and opportunities for growth in the future. I have learned to be patient when troubleshooting and using creative problem-solving rather than just giving up. I now have a deeper understanding of my own code and a better understanding of how programs work through the process of debugging.

Despite these challenges, I believe that I have the ability to create interactive artwork that I had no idea was possible at the start of the semester. I am able to animate figures, track user input, detect collisions, build complex sketches and create landscapes that can change over time. I have discovered that I am able to influence behaviour and experiences beyond just graphics. I am able to design fun systems, atmospheric environments and artwork that change according to the viewer in real time. I am able to integrate logic, animation and design into a single expressive form of art.

I thought coding to be something unrelated to my identity as an artist at the beginning of the semester. Now, I see coding as a tool I can continue developing, much like drawing, writing, or painting. I still see myself as someone who is still learning creative coding, but I am headed in

the right direction to incorporate coding into my work. Coding no longer feels like a barrier. Instead, it feels like a medium that is finally opening up for me.

My comprehension of creative code has also expanded beyond technical proficiency. I now know that creative coding is not about perfection but about exploration. It involves designing systems and allowing unexpected outcomes combined with my artistic vision. I now value the harmony between structure and improvisation, rules and randomness that comes with coding.

I am excited to keep learning about interactivity, animation, and design. I want to integrate sound, create more complicated systems, and eventually expand into displays that are interactive. I am especially interested in discovering how spectators might participate with the artwork through mouse interactivity, keyboard instructions, or sensors. I aim to make artworks that feel alive, that respond, that move, evolve and that evoke an emotion in the spectator.

Overall, it has been an amazing opportunity to go from being a beginner to someone who can think, create and solve problems with code. My technical skills have grown a lot, but more importantly, my creativity has grown too. I now see myself as someone who is still learning, but already capable of including programming as an important part of my artistic practice. I'm eager about the future artworks that I am going to produce through code.