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Creative Coding - Final Self Assessment

Experience and Learnings.

My personal journey with creative coding began in the grueling task of sketch 1. I remember spending hours on just trying to align a shape to perfectly mirror the art section I was copying. This included exploring the Processing reference at almost every step of the process. I learned a lot in this introduction, but I was really hoping our following tasks would be less constrained and tedious which, thankfully, they were.

The following projects were more creatively and technically complex. This required me to fully grasp programming concepts. Since most of the syntax and functionalities were already familiar, I really tried to pay attention to their creative applications. I did this by constantly examining code in class and different references online. With this, I spent a few hours before every task playing around with tools such as if-statements, for-loops, functions, matrices, and classes. Personally, I think my sketch 2 and midterm project demonstrated how I was able to utilize these concepts properly in terms of visual aesthetics.

One thing that surprised me was how OOP played an impactful role in creative coding. Since doing sketch 1, I always wondered how to make code less repetitive. It made so much sense that classes can be used to create objects that are similar at their base, yet diverse at their behaviors and functions. This understanding of OOP transitioned into the use of p5 libraries which really helped me in my final project.

Final Project.

All of these programming concepts were solidified in my final project with emphasis on for-loops, arrays, OOP, and images. Initial issues arose from pixel manipulation, object interaction, and program performance. I solved these issues by going through the p5play reference and analyzing the documentation on their Sprite methods. I also did some debugging by looking at the console and using print statements at specific parts of the program. One cool solution I did to improve performance and to ultimately obtain my desired result was to divide my image into “tiles” and set these as Sprite objects.

I even went one step further and incorporated a machine learning library called ML5. This was a recommendation from LadyK and it was responsible for the hand tracking feature in my project. Here, I had to extract data points by accessing different methods and arrays. The hand tracking is not perfect and there are some performance issues, however, this might just be an inherent issue of machine learning.

Milestone and Accomplishment.

I remember presenting this idea in class and LadyK was disappointed because I called it a "hit or miss". Honestly, I was hesitant to even start on this idea because the concept of image and pixel manipulation was new and quite overwhelming for me. However, with some encouragement, I'm proud to say that I was able to create something very close to what I imagined. I even pushed myself further and incorporated camera tracking features.

For my project milestone, I would say that overcoming this image/pixel obstacle and making it even more innovative is my technical achievement. I used a combination of different programming techniques to produce a captivating visual behavior. Along with this, I also tested the waters of machine learning to enhance user interactivity.

Moving Forward.

Creative coding really exposed me to a different side of programming. I now have a deep appreciation for digital and interactive pieces. On another note, this class has equipped me with useful creative and graphical skills. It also introduced new programming concepts such as draw loops and different libraries that I never used before. Ideally, I plan to focus on front-end development so these are all skills that I am happy to apply in my future classes and projects.