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Creative Coding

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Self-Assessment

I am so pleased that I took the Creative Coding class in my first semester. It gave me a deeper understanding of programming. And the most getting is that the course opened my mind and broadened my view.

I used to think coding was very boring. I thought it was just a way of syntax accumulation. However, with the deepening of learning, I found coding was the ultimate computer game. Indeed, it is the game between you and the computer. Also, I really love the languages of processing and P5. Because they are different from the traditional programming languages which are just based on text and mathematical manipulation. In the world of Processing and P5, I could not only learn about variables, modularity, functions, objects and arrays, but also learn different kinds of visual explorations. It is so amazing that it could establish deep connections to art, science, architecture, etc.

Learning a new thing is tough. In this semester, even though I spent a lot of time (more than 12 hours a week) on learning processing and P5, I still often encounter difficulties and setbacks. For example, I often feel it is so difficult to understand the peculiarities of a language and it is hard to debug an elusive bug. What’s more, sometimes, I feel my programming logic is very chaotic, especially in the complicated projects. I think I should do more exercises and read more great projects on Github.

*Compare and contrast OOP versus Procedural Programming*

In my opinion, OOP is more convenient than Procedural Programming. It looks like some “lockers” (classes and objects). When you want to get something, all you need to do is to find and open them. I believe the ability of modularizing programming is one of the most important skills that a competent programmer should have. In addition, OOP allows us to reuse our previous coding projects, which could help us save a lot of time. Also, with the help of OOP, we could easy debugging. If a particular object turns out to be a problem, we can simply remove it from your application and plug in a different object as its replacement.

*Final Project*

My final project is “Moiré Pattern Simulation”. It is an experimental study. I want to create an interactive narrative framework of attraction, participation, and interaction. I hope to give users a view of “Uncertainty and Certainty”. With the help of Arduino Sensor, users could explore a fascinating physical phenomenon. In the project, I used variables, arrays, objects, OOP, etc. I also used functions of Perlin Noise, for, if, etc. I found the function of Perlin Noise was very useful. By the application of it, the resultant pattern showing on the screen will become unpredictable, which fits my programming topic.

The process of programming was far more difficult than the result. In order to have an artistic and obvious Moiré phenomenon, I tried different combinations of shapes. Fortunately, with each iteration, the solution is coming closer and closer to my initial programming concept.

*Next Steps*

This is what I learned through the course. It is obvious that learning coding is similar to learning to speak another language. It needs a lot of practices. Moreover, I plan to take the class of “Advance Creative Coding” next semester. I will continue to implement the methods that I learned from the class in my future career.