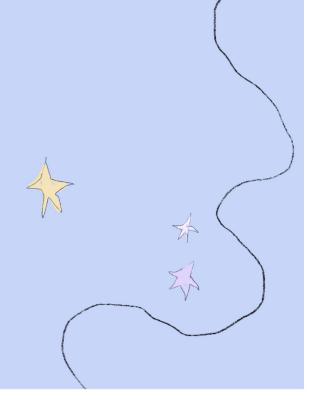
## Short Reflective Essay

CART-263

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The depths of programming and learning is endless, just as the possibilities of creation are infinite. As with anything, the more knowledge we attain the more we understand the scope of our field. Delving into the world of MI5.JS, Phaser, and learning how to cohesively integrate libraries into my creative concepts was the most challenging and rewarding aspect of my learning experience throughout this semester. Balancing tactful design with organized, well formatted code is a task that requires the patience to create many iterations of the concept you once perceived in your mind.

At the start of the semester, I did not feel completely comfortable in my programming skills, and in turn, my ability to learn and create were hindered by my hyper focus to maximize my time. I would often turn to more experienced peers for advice, attempting to make a collage of code from my past works in hopes of skipping through the difficult documentation. I soon learned that this lazy, inefficient method of learning was getting me no where in my journey to eventually code fully realized games. When it came time to create our AI Jam, I had so many concepts to fletch out yet my programming was not advanced enough to keep up with the concepts I wanted to create within the time frame. I was frustrated with myself and the learning path I had chosen, as I knew I was capable of more. Part way though this semester, I turned my focus to truly becoming comfortable with HTML, CSS, Javascript and the libraries we explored in class, rather than focusing on the design concepts I wanted to implement within the code. In doing these jam assignments, I was able to come into my own and create a concept from the ground up with confidence. This switch genuinely allowed me to work faster, find the errors in my programming much quicker and over all allowed me to understand how much I have yet to learn. It felt as If I had unlocked a new level of progress in my programming journey, and the depths of possibility began to appear clearer.

I can say with confidence that I am much more comfortable using Github to document my process. It allows me a visual time line of my progress and what was lacking from my initial concept initialization. I struggled greatly in the past with keeping my programming projects organized and efficient, and I believe the structured yet creatively lenient nature of this class really allowed me to come into my own in that regard. I believe in order to really develop the complex game concepts I have in mind, with multiple levels and enemies that have developed mechanics, I have to keep experimenting and pushing myself to read more documentation; only by truly understanding the documentation of a library can I really experiment and play with a

game function. There is no "right" way to create anything while programming and most often has a multi faceted set of solutions. I found a lot of my time was spent reading and trying to understand how functions interact with each other rather than playing with possible mechanics and applying them directly. For example, I spent a great deal of my time trying to maximize and implement levels and scenes in my game code without it exploding all together. This sacrificed my ability to to fletch out the enemies and create more detailed sprite sheets for the characters as I did not have the time to understand the implementation and optimization process in full. Yet, now that I know the optimized formatting within Phaser, my next game iteration will be much more focused. I plan to create more levels within Outspace, as well as integrate more collectable items, interactive combat between the enemies and the player (restart on collision or minus 5/10 health on collision).

The programming knowledge I have acquired will follow me throughout my studies, not simply within the confines of game or web creation. I can now create visual, interactive designs through the implementation of AI utilizing ml5.js. For my future fiber art exhibitions, I would love to create an interactive experience where the user can swipe in the air using movement recognition. The interaction would be projected behind the piece on display, allowing the user to compare the past iteration to the present from isolated time lapses, capturing the tedious process of creating knitwear garments. As for the gamification of my programming journey, I am incredibly inspired by games like Braid, Meat Boy, Undertale, that feature simple game mechanics coupled with rich storylines that directly impact the outcome of the players experience. Games that implement tongue in cheek interactions that sway the players trust in the narrative allows the user to utilize free thought and gives an affordance for the user to play your game, out of all the games that exist. Integrating my knowledge from JavaScript, I can create new stylized, niche features to fit inside my game world, rather than simply coding whatever is the most simple to achieve. I no longer want to sacrifice my concepts for the sake of convenience or lack of knowledge. I would love to graduate to programming with Python or C++ so I can integrate my 3D designs from blender into my creations, which I was not able to demonstrate this semester.

To conclude, looking back from where I was at the start of the semester, the bounds of what I thought to be possible feels infinite in comparison to what it was. Simplifying my designs and focusing on the methodology behind my programs allowed me to find balance and retention

with all of the concept we explored. At times it requires you to let go of the idea you once held close and simply create what is feasible within the bounds of your knowledge. In turn, I am finding my way to my potential within the depths of the programming world. I believe taking this process step by step rather than hyper focusing on the final product has allowed me to truly understand language such as Phaser and ml5.js while maintaining my creative concepts. I have much higher expectations for my future works, I will hopefully be able to find the right balance of computation and creative output.