

## Exercise: Reflection

Before I started this class, I was somewhat familiar with programming in general. I've had an engineering class on Python and used some C# when programming in Unity, but I've never felt like I truly understood how to program myself. Before this class, I would just follow and copy YouTube tutorials on coding and not really deviate from that source. Before this class, I honestly sucked at programming. Now that I have taken this class, I really feel like I've grown in my learning. Doing the weekly exercises and following the tutorials have really helped me learn how to program on my own. When I was doing my Python class in engineering, I never really had that drive to learn that I got with this class. It was way more of a structured in-class learning with super boring projects that had strict requirements, but this class made me engage differently. By allowing the students to create their own ideas using more loose requirements, it really drove me to learn new things to try and implement all my ideas. I've never had so much fun programming. Some of my favorite projects I've ever made were in this class. For midterm project 1, I made a pumpkin carving simulator. I spent so many hours making the code and just adding as many features as I could. When it was all done, I was so proud of what I made. I ended up learning how to do arrays before our class got to that section just to not compromise on my artistic vision. This class has made me learn to enjoy programming for so many reasons. The main aspect of programming that I enjoy the most is open-box problem-solving. There are so many ways to solve an issue or bug in programming that even if one idea doesn't work there are 10 more to try. So far, the most difficult aspect of programming for me is object-oriented programming. I struggle to integrate my class scripts with my main script. I've tried to work on my issue with it in my final project. I'm very proud of my choir section in my final project. I find it so fun to play with. For my future in programming, I hope that I continue to learn and practice with more complex code so I can make even more adventurous and difficult projects. I want to be a game developer (like so many other CART students) in the future and I hope I am able to program effectively by the time I graduate.