Ping Pong

This was my second time I developing and programming a game. The first time was snake and I just followed an outline tutorial my teacher provided. This time I developed a game a simple game from scratch. I decided to make Pong using Java for my midterm project for my AP Computer Science class back in high school. I utilized the Javax.swing and the Java.awt libraries to create the Graphical User Interface (GUI). The purpose of this midterm was not only to familiarize myself with event listeners and handlers, but also to begin thinking about game design and logic. I also tried my hand with creating an artificial intelligence opponent, in which it would track the balls location, calculate the Y positon of where the ball was going before end up and move toward that calculated position. The code and a jar file to play the game can be found <https://github.com/LuvneeshM/Ping-Pong> on my GitHub.

2D Simple Shooter

For my final project for my AP Computer Science class, I pitched the idea to design an original game as a means to learn the basics of game design and game engineering to my teacher. For this game I tried to implement different states, such as a Menu State and a Game State. After sketching out a rough draft on paper, I jumped into coding the states and focus on getting static images to show. Afterwards, I went back to add animations, movement, and allow for user input. Developing this game was actually a huge eye-opener as I quickly learned approach was very inefficient. I spent hours to days stumped on what I should be adding and focusing on because I only had a rough draft of how the game should be. I learned it is best to take the time and thoroughly develop a strong draft of the game, along with certain steps and goals that would be achieved. At the very least, this way I would have a functional prototype that I could then go back and add more bells and whistles. The game was once again created in Java is available <https://github.com/LuvneeshM/2D-Simple-Shooter> on my GitHub. An added bonus that came out of this game was I learned how to use Photoshop.

XNA 3D Space Shooter

I decided to leave the nice comforting bubble of two dimensions and begin exploring the world of three dimensions by developing a 3D asteroid shooter game in C#. I used the Microsoft XNA Framework and after following a tutorial to understand how to begin thinking about programming in three dimensions, I thought about what I could now do with this newly acquired knowledge. I decided to see if I could take the 2-D asteroid game I was playing and turn it into something 3D. Unfortunately, I can not say I designed the 3D models I used; but, I did modify and customize them using Blender and Maya. Learning from my previous experience, I fully sketched out a working prototype and included different attributed and aspects that I wanted to include as benchmarks. While I was in the process of developing and programming, I had to take a small detour and teach myself Linear Algebra, just enough so I understood what I was doing with my matrices. For checking the collision detection, I took advantage of my Z axis and had that as a backup check in addition to my collision detection for the bullets and asteroids. Even though the 3D aspect brought an additional level of complexity, since I was piecing together more and more about game design, game engineering, and game programming from all my mini and large game projects before this one, it was not as daunting and difficult. The full Visual Studio project is available <https://github.com/LuvneeshM/XNA-3D-Space-Shooter> on my GitHub.

Best Name Ever

Yes, my team and I decided to call this game BestNameEver. All together we were a team of 4 and decided to split up the roles depending on our strengths and weaknesses. I worked with another team member to create the designs for an endless single player two-dimensional shooter game alogn with a user-friendly tutorial level in Python using the Pygames game engine. I was responsible for efficiently coding the player to be able to move in all directions and using the keyboard and mouse to shoot. I also created a tracking algorithm that optimized enemy movement to detect and slowly move toward the player. This was my first time working with a diverse team where not everyone had experience in game design or in developing games in general. While I was able to teach them what I knew, I believe I came out of this project with a lot more. Not only did I learn more about graphic design, but also I learned how to manage a team so that everyone is content with each other’s work ethics and how to convince those whom are skeptical to continuing the project. To check out more of our game and some of the required documentation, check it out <https://github.com/LuvneeshM/CS1122\_Final\_Project> on my GitHub.

Game Programming

I am taking an Introduction to Game Programming course at New York University and I am basically making a game once every week to two weeks using C++ and OpenGL. These games are to help enforce and support the content and material we learn in class. Some of the games that I have worked on for this class include Pong, Space Invaders, and a simple scrolling platformer prototype. All of these games are available <https://github.com/LuvneeshM/GameProgramming> on my GitHub.

Gilly Works

I am currently a co-founder, with two other teammates (Gilbert Anwar and Zami Talukder), of Gilly Works, our attempt at a startup in which our aim is to create user-friendly, fun and entertaining apps for iOS and Android. I focus on building apps for our Android platform using primarily C#, Java, and the Unity3D game engine. Most recently, I worked on creating and publishing Gilly Connect, a four directional connect four game, now available on the Google Play Store. In addition to Gilly Connect, we also published Color Drift, a color based reaction game in which the player taps circles as the same color as the player, to the Google Play Store. Our apps are free to download <https://play.google.com/store/apps/developer?id=Gilly+Works>.