What programming languages do you know and where did you learn them?

I learned Java in high school and expanded on that knowledge through various computer science courses in college. I learned Arduino programming for an engineering design project where I programmed an Over-Sand-Vehicle that me and my team built. I learned C and some C++ in college and continued to work in C throughout other computer science and computer engineering courses. I took a class called Organization of Programming Languages, which taught me how to quickly learn and code in any language I might encounter in the future. In that class, I worked in Ruby, OCaml, and Rust. I learned C++ and some Python through my internships with Northrop Grumman Space Systems and will continue to work in C++ through my embedded systems course this spring semester and in my Northrop Grumman internship this coming summer. Finally, I learned C# in my Game Programming course, where I also learned to work in the Unity game engine.

What was your favorite undergraduate class and what did you like about it?

My favorite undergraduate class was Game Programming. What I liked about it was that it was different from any other programming class I had taken before. The other classes I had taken had used coding as a way to introduce programming concepts such as data structures and algorithms. While it was important to learn, it didn’t translate as well to how programming was done in the real world. The Game Programming course allowed me to explore a real-world application of what programming could do, in a way that related to my desired career path. My favorite project was the final project, where I worked in a team to make a short video game. We were given total freedom to make whatever type of game we wanted to make, and I had so much fun making it. It was the first time I had to do a group project in a computer science class, and it was a valuable experience to have.

Describe experience you have working with others on projects, especially game projects.

The Game Programming project was with a small team of two other students where we had to make a short game that showcased certain mechanics that we learned how to implement throughout the course, such as dynamic camera movement, interruptible coroutines, and collision detection. I was put into a group with two students I never met before, but we all had the same idea for the game we wanted to make: a 3d platformer that required picking up power ups to progress. I was responsible for level design, character movement, and mechanics, which is what I most want to work on when making games. We came up with several ideas for what we wanted to do and narrowed them down to what was feasible. We worked well together and rarely had any disagreements, but when we did disagree, we would discuss the pros and cons and reach a conclusion that way. It was hard in the beginning when we didn’t really know who was going to work on what, but once we delegated roles everything went smoothly. We would work together in a group call so that we could talk about the project, and before we left the call, we would assign tasks that we would complete on our own before the next meeting. I also was the programming sub-group leader on the engineering design project, where we had to design an over-sand-vehicle to perform tasks in an arena. There were 10 students in that group, and even though everyone was part of a certain subgroup, everyone was involved in every subgroup’s task. Each student had a part in the structure, power management, and programming part of the project, and it was much easier to work together on building it since there was so much communication between the different teams.

What types of games do you play in your spare time?

I mostly enjoy playing action-adventure games and platformers, especially Metroidvanias like Hollow Knight. I really enjoy exploring and progressing through a world, getting stronger as I go. It also helps if the character has different mechanics for traversing the world, to give the player more freedom of movement. I also enjoy games that a player can put a lot of time into, such as randomly generated games. These can include games where the levels are randomly generated while you retain progression, such as Deep Rock Galactic, or roguelikes where the game route is different every time such as in Risk of Rain 2 or Hades. These games offer tons of content from such a tight experience, making them incredibly fun. I especially like playing these games with a few of my friends, when the game supports collaboration with other players. I also enjoy action games such as the Devil May Cry series and anything made by Platinum Games.

Elaborate on anything else that makes you unique.

I am interested in not just the programming of video games, but what goes into designing them as well. I want to have experience in all stages of the process of making video games and am open to experiencing new things when it comes to making them. That’s what drew my interest to FIEA in the first place; the curriculum gives the opportunity for everyone to experience everything that goes into making a game, not just what they chose for their specialization. Getting both the programming and design experience in one curriculum is what I want out of an education in video games, and FIEA offers exactly what I’ve been looking for.

References:

Reference 1

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