

Topic Proposal

As a topic of study this year, I am interested in computer programming. Specifically, I am pursuing the field of game programming and development in order to learn more about how to design systems for a fully fleshed game that can compete in the industry.

The entire process of building a game, from the drawing board to mass distribution, involves a wide array of disciplines that pique my interest. Some of these skills include graphic design, animation, music composition, player psychology, and creative writing. The skill that most interests me, however, is programming, employed by game developers who transform the ideas of the design crew into a real system with which a player could interact. Programming has been a part of my life since elementary school, when I started picking up basic HTML and Python. Now, my experience in coding has accelerated significantly, and I now boast proficiencies in C#, Java, Javascript, HTML, CSS, Python, SQL, and Swift, obtained through computer science classes, programming competitions, and job experience. My more specific interest in game programming finds its roots in the early years of the free online computer science course on KhanAcademy.com, where in elementary school, I produced a small game that went viral on the site. From there, my freelance experience in game development using tools such as Unity and GameMaker have helped build that interest into what it is today. I have currently published two complete games - Conjugate, which placed fourth in a game jam, and Forward, which won the Underdog of the Week award on Newgrounds.com - and want to create more in the future.

The most enjoyable part about game development for me is that in pursuing a certain artistic vision, I create my own puzzles for which I must develop a solution. These problems can

be highly challenging sometimes because they tend to be unique issues that cannot be solved as simply as problems presented in school. Despite this, the rush of ecstasy from finally resolving an issue more than makes up for the mildly frustrating hours spent figuring it out. This is especially true in the gaming industry because solving those problems works to bring a project one step closer to being a truly enjoyable interactive experience for not only myself but also for thousands of other potential players, so the effort feels uniquely meaningful. In a way, creating a game is itself like playing a game. With my ability to reason through problems of increasing complexity and intuit solutions from my collective previous programming experience, game development is a field that I know I will be able to love and master.