This semester has really transformed me as a person. At the beginning of the semester I choose to quit track and field. This was probably the best decision I could have ever made. If given the chance, I would make the same decision over and over. This allowed me to have more time to focus on myself and my studies, and overall, it allowed me to find myself a bit more then I already have.

Moving onto my “transformation,” with my extra time I was able to dive into my studies more. This semester I took Calculus Based Physics II, CS 2: Data Structures, and Numerical Analysis along with Honors Fine Arts, Rock Ensemble, and Jazz Band. Having some more time allowed me to dive into the textbooks a lot more then I have been able to since being in college. Physics, CS, and Numerical has opened my mind to endless possibilities. When I came to BV, I had no idea what I wanted to do. I came in as a math major. I dreamed of becoming a math professor where I would have the opportunity to continue my learning forever. That is one thing that has not changed. I love learning and I want to learn for the rest of my life. The thing that did change was that I found that I truly loved the applications of math. I have always said that mathematics is the language of the universe, and if you can use it and understand it that you can communicate with the universe and learn its greatest secrets.

Having this passion for learning and especially learning how to communicate with the universe has driven me in the direction that I am in now. I started taking physics and it was like I found something that allows me to truly connect with the universe. Since then, I have sought out learning more and more physics. I want to speak with our universe! Also, in the fall I took CS1 with Dr. Shepherd more of just a course to take for the WashU Dual Enrollment Engineering Program, but Dr. Shepherd opened my eyes to a whole new form of communication with the universe. It was as if I learned a new language that allowed me to communicate my thoughts and solve problems.

Taking Numerical Analysis has truly shown me that computers are the “new” medium to communicate and learn from the universe. It has shown me that I can solve so many problems with computers. Problems that are easy up to problems that are extremely complex. Numerical Analysis merged the divide between math and computer science, and that’s what I want to do. I want to solve problems using my math and science skills. Physics to me is the math of the real world and how math applies to this. Those are the types of problems that I want to solve. I was to use Physics, Computers, and Math to solve complex problems that will benefit the world/universe that we live in.

As far as CS2 goes, learning more in depth about how computers work and store data has allowed me to get a more foundation knowledge of how I can implement things when I am trying to solve a problem. I truly enjoyed this class. It was a really good step up from CS1 and really allowed me to learn deeper about how to use computers to do tasks that I want them to do. One of my favorite homeworks was the creation of a Dynamic Array and implementing the Sieve of Eratosthenes with the Dynamic Array and the STL Vector. Having us implement our own Dynamic Array, Linked Lists, Queues, and Stacks really allowed me to understand on a more deep level how these data structures work and how I can use them. I think that is a great way to teach about data structures. Having that knowledge of the foundation data structures before using the STL built in Data Structures help me understand how to use and implement the STL D.S. a lot more then if we were just thrown into using them. Throughout this, I learned C++. C++ is great. I really enjoy it, and I feel like it will go on to be my favorite language for a long while.

I didn’t write anything about my final project yet. Anyways, this final project allowed me to learn the STL D.S. a lot more and how to use them. At first using them was a little daunting but practice makes everything easier, so this project was a good amount of practice. It also opened my mind to so many things that I can do. I could make just about any program I want to do something that I want it to do. Whether it be something like a text-based game (I plan on improving my game over the summer by the way), or a physics problem solver, or really anything I want. I know that if I put the work into it and figure out the logic and how I wan to implement things that I could do it.

I am a problem solver, and I will always be a problem solver. That’s what I want to do.