

Because of my work schedule, I was unable to fit the Westminster College Computer Architecture class into my schedule. I was fortunate to successfully petition the school for a variance in policy and was able to take the same class at Salt Lake Community College. I attended my Software Engineering class with several Westminster Students that were taking the course at WC simultaneously and kept tabs on their curriculum. I must say that the feedback I received from them makes me believe that the SLCC version of this course might be a bit more rigorous. We learned the basics of architecture like pipelining, MIPS, data paths and other concepts but the final project that we whittled away at over the range of the semester was absolutely amazing. Computer architecture was absolutely fascinating to me and 251 with Dan Byrne was a nice dabbling in how hardware works within a computer system. The SLCC class was extremely demanding and John McGowen assigned extensive and challenging homework weekly throughout the course that required large sums of time to complete and exploited our understanding ( or the lack thereof ) of the current topic.

Our final assignment was to build anything that we wanted implementing at least one microcontroller. Our choice was the Arduino UNO. In the end, we utilized 2 Arduinos and a Raspberry Pi for our project. We built a home security system. An alarm was triggered by breaking a laser light signal. Once tripped, an airsoft mounted on a turret assaulted the intruder, a picture was taken of the intruder and the picture and an email was sent to the user.

As a result of this project and the class, in general, I am now, more than ever, aware of the importance of abbreviated code structure and the processes and pathways of data and hardware within a computer, respectively. The project gave me insight on Github as we had a total of 98 branches and merges of our code over the semester and our git page looks and functions extremely professionally. The project and course has also sparked my interest in embedded systems and, at the least, I able to look around the world and understand more fully about how microcontrollers work and how I might possibly make something work differently and better. Indeed, microcontrollers are everywhere and have become more and more prominent because of IOT ( internet of things ) and DIY projects published all over the world wide web. I can't wait for some added time to my day upon graduation to start building my bucket list of electronic projects.