**What did I set out to accomplish and why?**

I have always been very fascinated with Church doctrine. However, I especially love reading about early Church doctrine, talks, etc. I became very interested in the Journal of Discourses right before my mission and while I was on my mission I would read parts of the Journal of Discourses. (The rule said that we could read general conference talks, and that is what the Journal of Discourses is right?) Anyone can image how someone would quickly become frustrated searching through dozens of volumes looking for specific topics. I decided that I wanted to be able to search out through all of the Journal of Discourses at once and find topics that I was looking for nearly immediately. I decided that it would also be a good idea to have this searchable Journal of Discourses available on different computers and I also wanted to enhance my ability to incorporate Python scripts with other programming languages.

**What were the various steps you took to accomplish your goal?**

Honestly, text analysis isn’t my thing. I have enjoyed learning the different tools of parsing stings, learning how to web scrape, and using regular expressions. I enjoy programming and Python has been a valuable skill that I’ve been able to add to my tool box. In order to push myself, I decided to try programming a website to host my Python code. Most of my experience with programming isn’t within web development. In order to have a website, you need a server. I spun up a Ubuntu server on my DigitalOcean account and then download apache2 and php-5 in order to host my website. I didn’t know very much html or css, so I decided to go with bootstrap. I watched a tutorial on the internet and adjusted the code in order to fit my needs. Then, I needed to find a way to incorporate my Python script. After a lot of research and banging my head against a wall, I found a way to call the Python script and have the results display to the main website page.

**What challenges did you run into and how did you overcome them?**

The biggest challenge that I had was getting the results from the Python script to display to the webpage. In retrospect, the solution was a lot simpler than I had originally imagined. After figuring out how to get the file to open correctly, I then realized I would just have a bunch of random text with no formatting printing to the page. After trying to use lists, I finally decided that I would need to echo a string to the page. Other than figuring out how to get the results to display nicely, everything else came pretty easily.

**What have you learned in this class that (a) helped you with your final project and (b) will help you in your future?**

I based my project off of the web scraping assignment. In order to get a corpus that could be searched, I needed to get all of the volumes into a single text file. I web scraped another website so that I had all of the volumes in a single text file that could then be used. I needed to understand modules, regular expressions, and how to open a file in order to analyze the data. In the end I actually didn’t get all of the volumes into a single text file. In the future I would want to see how I could speed up the searching so as to include the entire Journal of Discourses.

Learning just the basics of Python has given huge benefits. This spring I was able to get an internship, in part, because I understood regular expressions. Regular expressions are so powerful and even at work I made a copy of the regular expression “cheat sheet” for my fellow coworkers. I also had been meaning to learn more about JSON files and web scraping and I’m glad that I was able to learn both of these in class. I am really glad that I took this class and was able to learn more about Python.