**Monday 11/25/2019**

Today, I decided to focus on learning Flask, and this “mega tutorial”: <https://blog.miguelgrinberg.com/post/the-flask-mega-tutorial-part-i-hello-world> was a big help since it gave an elaborate introduction on how to get started with implementing web applications in the long term. Compared to the code you could see here: <https://palletsprojects.com/p/flask/>, the code provided on the former link provides a more firm groundwork for in-depth web applications.

Even the first page of the introduction was rather complicated to process in my brain. I thought I understood the code for the most part, but I just did not appreciate the level of uncertainty

**Monday 12/2/2019**

On this day, I checked in with John (a Sys Admin.) about implementing streamlit on Director, and we actually made surprising progress. He was able to work with the port that streamlit produced when running the app, and modified the “run.sh” file as necessary. We were faced with a server error that John was able to solve, and when faced with importing issues, which we were able to solve easily. However, there was just one main problem though in regards to importing, and it was from the fact that our code depended on “fastai.vision”, which is a subpackage of “fastai” that required a higher version of Python that Director was not able to handle at the moment. Therefore, every part of the website we made with Streamlit was indeed compatible with Director, except for the neural network part.

I knew though that “fastai” heavily depended on PyTorch, and I thought maybe I could use alternative PyTorch methods to get our complete web application compatible with Director. The method we used that relied on “fastai.vision” was “load\_learner”, which was used to extract the “export.pkl” file full of our neural network weights. I thought maybe “load\_learner” borrowed certain methods from PyTorch. I did not have time to search for methods on PyTorch unfortunately since it was the end of class.

**Tuesday 12/3/2019**

My partner Connor discussed with Mr. White about our progress so far, and he decided to chime into our issue. I am not too sure exactly the details of went on (except that this platform called “miniconda” helped majorly), but in the end, they made progress. However, then we were pressed with another issue: “AttributeError: 'ReLU' object has no attribute 'threshold'”. Mr. White told Connor this was another compatibility (more specifically the compatibility between “miniconda” and “fastai”, something like that).

**Wednesday 12/4/2019**

Apparently, Mr. White “took the liberty” to debug my partner and I’s website for us. That was really nice, except I had not known he was doing that since I was trying to debug the website myself because I did hear it was a version issue with fastai or PyTorch. My partner suggested I go through each package, check the version installed on Director, and see which version I installed locally, and see if the two versions are different or match up. It is good if they match up, but different versions, of course, need to be resolved. Interestingly enough, at the time I noticed all versions matched up. I thought this was weird since around 20-30 minutes ago, I had an error running the website, but the website was able to run locally. I restarted the server on Director and gave the website another try, and somehow it was working. At the time, I did not know it was due to Mr. White’s efforts but thought it was pure luck.

I came to know Mr. White helped because he sent an email to both me and Connor about how he was able to debug the website and resolve the issue at hand. I had sent him an email yesterday thanking him for working with my partner Connor to attempt to get the website working. Apparently, the methods both John and Mr. White did were similar, but the difference was that Mr. White used miniconda to handle the packages while John tried installing the packages under a virtual environment. Mr. White used a virtual environment from ./~bashrc, or something like that. I do not really understand it, but I plan on talking to Mr. White next class about the process he went through.