

Journal Report 1

9/1/19-9/8/19

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Period 4, White

Daily Log

Tuesday September 2

I retrieved data from NOAA as a .csv file and successfully read into Python. This data was the hourly normals for all of 2010. Then, I created a basic application to retrieve data from the .csv file. Additionally, I ran the LSTM demo from PyTorch. I also did some more research and reading on how LSTM's work. I plan to download more years of data and begin to compose my own LSTM.

Thursday September 5

I connected my files to a GitHub repository, as well as downloaded a LaTeX editor. I found minutely data from ASOS (Automated Surface Observing System), which would definitely be helpful. It only stretches back to 2000, and I hope that's enough years.

Timeline

Date	Goal	Met
9/8	Find data to use	Yes, but I still need to figure out how to parse it into Python
9/15	Edit the LSTM demo to solve different problems	
9/22	Have an LSTM ready to be trained on data	

Reflection

I began this week by trying to learn more about LSTM's with the goal of being able to construct (or modify) one to suit my own needs. I was able to get the demo running but am still working on understanding the lines of code. So far, I've figured out how to train the network, but not quite how to test it.

I also looked for data sets that I could eventually train on. I figured this would be easy enough, it would just be a matter of finding "station data". Unfortunately, I found out that the term "station data" is fairly ambiguous and can refer to hourly normals, yearly normals, and annual summaries. However, only the hourly normals data came in a .csv file that I could readily parse into Python.

Later on, I came across minutely data. This higher resolution could make my predictions more accurate. The data is compressed as .gz files which I will need to figure out how to extract.