NOAA-CESSRST CENTER FOR EARTH SYSTEM SCIENCES AND REMOTE SENSING TECHNOLOGIES

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CET 4900 - OL60

**Journal Entry #1**

## I. Introduction of NOAA-CESSRST

This Spring 2022 semester, I am interning at NOAA: National Oceanic and Atmospheric Administration Center for Earth System Sciences and Remote Sensing Technologies (NOAA-CESSRST) as a NOAA-EPP Earth System Sciences & Remote Sensing Research Engineering Intern. NOAA is a government agency within the United States Department of Commerce that forecasts weather, monitors oceanic and atmospheric conditions. They aim to interpret and predict changes in climate, weather and the ocean coasts. NOAA is also associated with NASA and conserves similarly manages coastal and marine ecosystems/resources.

## II. Workplace Environment

Although, the headquarters of NOAA is located at Silver Spring, Maryland near Washington, D.C., NOAA CESSRST is in the Grove School of Engineering at CUNY City College. Due to the Coronavirus pandemic, the office is currently hybrid, and most employees are teleworking. I am virtually interning at NOAA CESSRST, and I was nominated based on my technical expertise. I collaborate with Engineers, Project Managers, Research Scientists and Professors. Also, I attend weekly check in meetings with my Mentor every Friday to discuss progress of the engineering project that I am working on with my Faculty Advisor. Before my internship started, I had to complete mandatory education and research training in NOAA mission-aligned Sciences at a CESSRST institution. My internship requirements include Responsible Conduct of Research (RCR), Center-wide Core Competency (CWCC) training and Individualized Student Development Plan (ISDP).

## III. Job Responsibilities

For my internship, I am conducting research on an engineering research project: "Development of a Communication Tool for Urban Weather & Climate Data" in the Water Prediction & Ecosystem Services Research group. I am being mentored under a NOAA CESSRST Faculty Advisor and Senior Research Scientist. I am responsible for utilizing the New York Urban Hydro-Meteorological Testbed (NY-uHMT) data to develop a Python script in Google Colaboratory or Jupyter Notebook by using data science to analyze large datasets. My analysis on the NY-uHMT data will benefit and become convenient in predicting and visualizing effective climate changes and interpreting the causes of natural hazards on Earth. My internship requires me to develop machine learning models and algorithms for time series forecasting predictions based on weather and climate change in New York City.