

# Climate Monitoring from Space

Hritvik Shrivastava

Mentors: Manik Bali, Lawrence Flynn

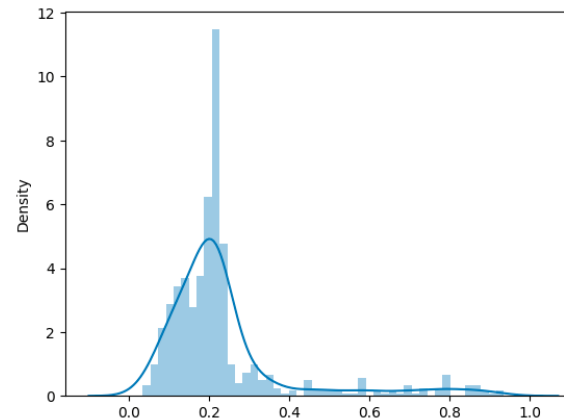
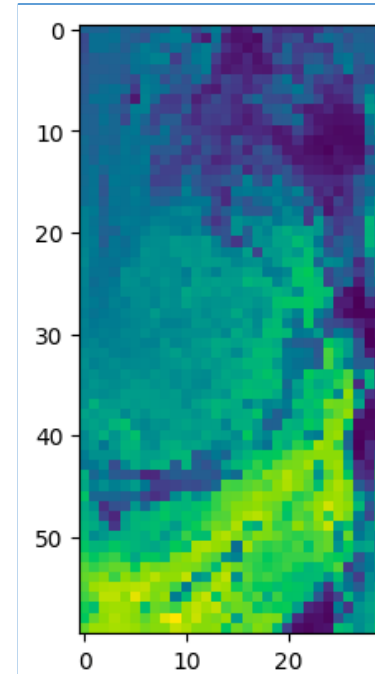
## Objectives

Import CrIS (Cross-Track Infrared Sounder) data from NOAA's NPP Satellite, deseasonalize the records and do a Empirical Orthogonal Function (EOF) Analysis using Python.

## Results

(This data was taken from one CrIS file from the Eastern Seaboard of the US.)

- EOF Patterns show dominant patterns in data, and these graphs show that the first few patterns explain the largest variance in the data.
- The first few EOFs are most likely associated with larger scale weather patterns, such as El Niño.
- The graph on the bottom left represents the density of clouds, and it shows a high density, likely resulting from storms or similar weather patterns.



Figure(s)

