

Software Requirements for Cyclone Prediction Program.

1. Operating System:

- Windows 10/11, macOS, or any major Linux distribution (Ubuntu, Debian, etc.)

2. Python Version:

- Python 3.7 or later (recommended: Python 3.10+)

3. Required Python Libraries:

Install the following using pip:

```
pip install numpy pandas geopandas keras tensorflow folium
```

Library	Purpose
<i>numpy</i>	<i>Array/matrix operations</i>
<i>pandas</i>	<i>Data handling and preprocessing</i>
<i>geopandas</i>	<i>Spatial data handling (optional here, but imported)</i>
<i>keras</i>	<i>Building LSTM neural network</i>
<i>tensorflow</i>	<i>Backend for Keras model training</i>
<i>folium</i>	<i>Creating interactive maps</i>

4. Optional Software (for ease):

- Jupyter Notebook (for interactive development)
- VS Code / PyCharm (IDE for Python)
- Google Chrome (to view the generated `cyclone_prediction_map.html` file)