

Application of Machine Learning in Radiative Transfer Modeling

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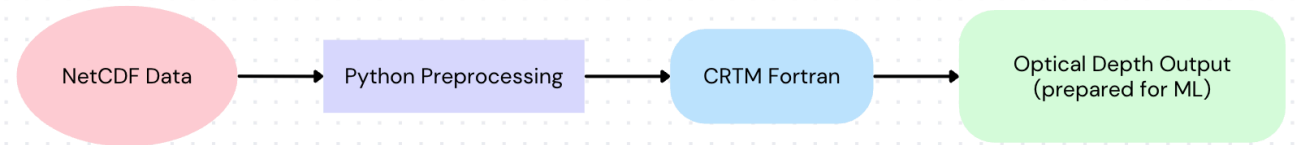
Objectives

- Integrated CRTM (Community Radiative Transfer Model) with Python
- Developing a data preprocessing pipeline for processing large-scale atmospheric profiles

Results

- Successfully implemented CRTM-Python Interface using NetCDF
- Identified & resolved critical data format issues
- Verified CRTM optical depth calculation pipeline

Figure(s)



Input

Output

86,913 profiles, 137 level x 4
variables (pressure,
temperature, humidity,
ozone)

86,913 profiles, 137 level x 22
channels (optical depth)