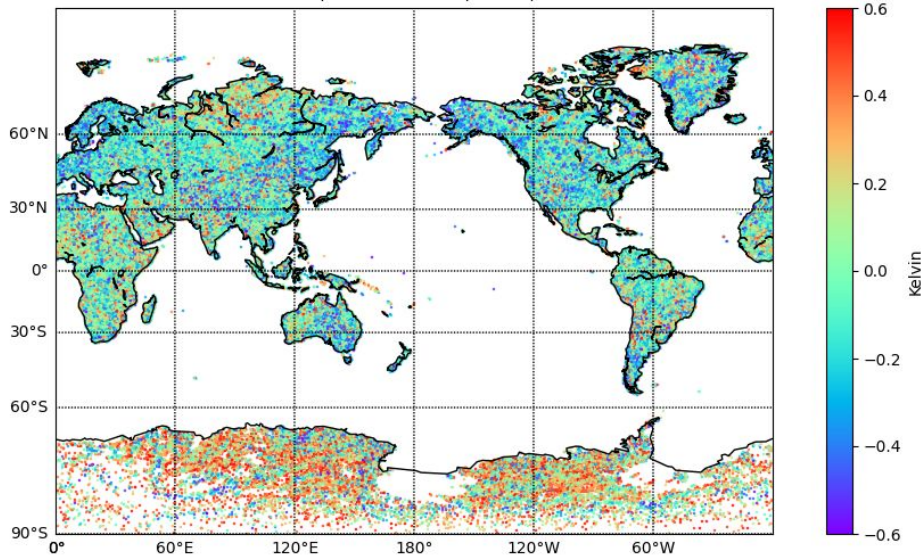


Difference BTs (MODEL - CRTM) CH22, 2022-07-22



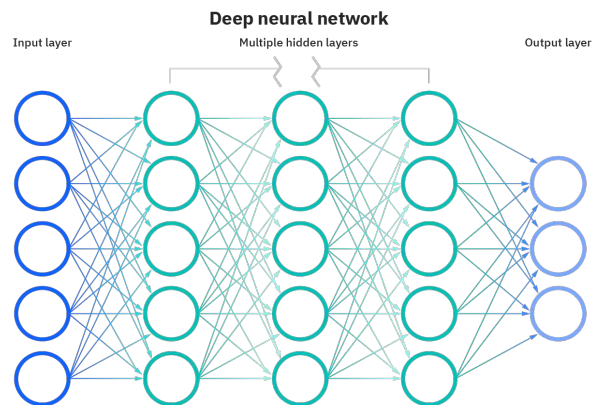
Developing a Deep Learning Model to Predict ATMS Brightness Temperatures on Land

Rida Khan

Mentor: Dr. Xingming Liang



- Deep neural network to predict 22 ATMS channels of brightness temperatures (using CRTM simulation as reference) using 210 input features
- Model architecture, learning rate, activation function
- Used data preprocessing for input data quality control
- Examine model results with difference BTs on global map and results across 22 channels
- 97% accuracy and mean within $[-0.2, 0.2]$ and SD within $[0.2, 0.4]$



Source: IBM

