# Rain Prediction

## USING ARTIFICIAL NEURAL NETWORK

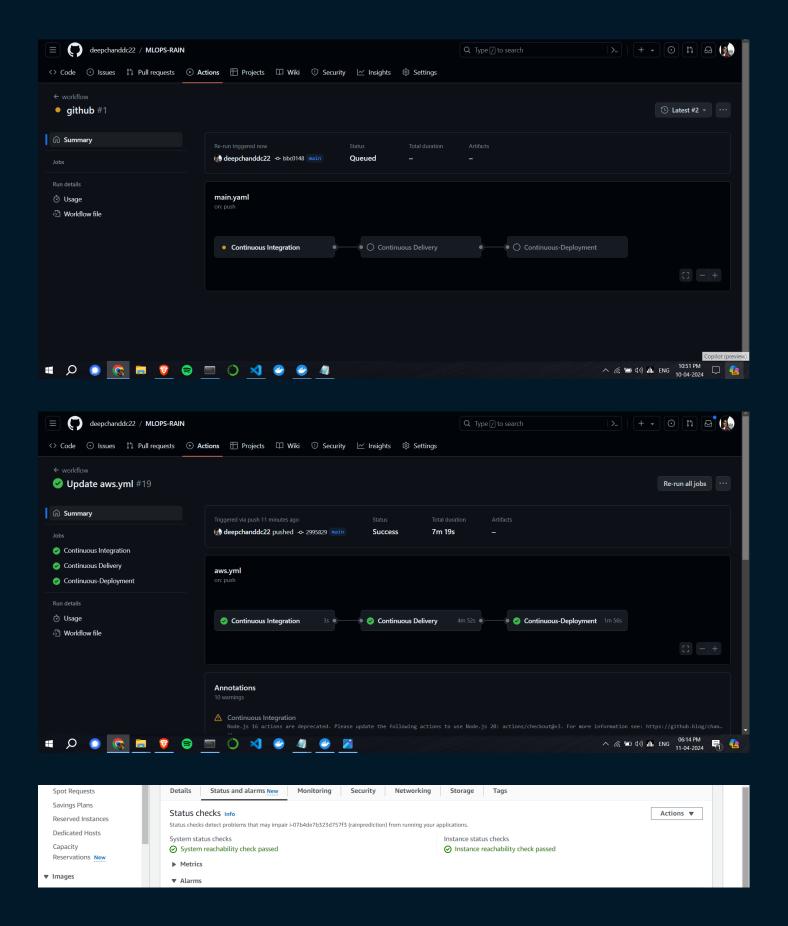Project by : Deepchand O A

# CI/CD Pipeline

## TO AWS EC2

# Front end

## MADE WITH STREAMLIT



🌧️ **Rain Predictor**

Made by: Deepchand O A

Temperature (F)

| 23 | − | + |

Humidity (%)

| 69 | − | + |

Wind Speed (mph)

| 10 | − | + |

Cloud Cover (%)

| 75 | − | + |

Rain Today

| Yes | ⌄ |

Predict

Yes, it will rain

An End to End ML Ops project on rain prediction using Artificial Neural Network and deploying to AWS EC2 instance.

## What this project does?

The ANN is trained on previous records of weather data ( dummy data ) which can use the trained model and predict the possibility of rain tomorrow.

## How it was done?

- Data is fed into data_handler module which splits the train and test data and also does the preprocessing.
- Which is fed into a training pipeline module in which the training parameters are tracked using MLflow while the model is trained.
- Once the model is trained it is saved.
- Front end is built using streamlit and takes input from user and loads the trained ANN model and does the necessary preprocessing and passes it to the model and then it predicts the output.
- Now all of these codes are pushed to github.
- Connect to AWS EC2 instance
- Deploy!

**Tech Stack Used:**

- Python
- Pandas
- Tensorflow
- Scikit-learn
- MLflow
- Streamlit
- Docker
- Github
- AWS EC2