Content of the Project

Foreword

In the period from August 26-27 in the 2020 year, I carried out an overview of the work of the meteorological station, an analysis of all the processes that take place there, collected some data for their processing

Reason for project creation:

1. Get an experience in creating my own project from zero to the finished result
2. Get an experience in machine learning and computer vision in real data
3. Have a fun=)

The purpose:

- create a single convenient database for meteorological observations
- Optimize the work of the weather station
  - reduce the number of staff required
  - reduce costs
  - use modern methods of data storage and transmission
- With machine vision to process all the data that are in paper form and transfer to a database
- With machine vision to observe visibility and the sky
- Create a mini-station model for online monitoring using modern electrical engineering

Expected result:

reduce human resources to support the weather station, automate the observation process, digitize the observation history, reduce costs, make an open observation database for everyone

Technologies to be used:

Python(Flask, SQLAlchemy, TensorFlow, numpy, matplotlib), SQL, Posgresql, ML, Arduino

An example of a single observation day from 1980 that needs to be translated into a database