# README - Pneumonia Detection Project

## 1. Install Anaconda

Download and install Anaconda from: https://www.anaconda.com/download  
This project is best managed inside an Anaconda environment.

## 2. Create a Virtual Environment

Open terminal/command prompt and run:  
  
conda create -n pneumonia\_env python=3.13 -y  
conda activate pneumonia\_env

or you can create env by using environment.yml which is in env folder

## 3. Install Requirements

Make sure you are inside the project folder, then install dependencies:  
  
pip install -r requirements.txt

## 4. Dataset Setup

The dataset files are already included in the project root folder under the 'data/' folder.  
Files available:  
 - healthver\_train.csv  
 - healthver\_dev.csv  
 - healthver\_test.csv

## 5. Train the Model

Run the training script:  
  
python train\_pneumonia.py  
  
This will train models and save them in the 'saved\_trained\_model/' folder.

## 6. Run the Streamlit App

To launch the web app:  
  
streamlit run streamlit\_inference.py  
  
Then open the local URL shown (usually http://localhost:8501).

## 7. Project Structure (Locally)

The extracted project has the following structure:  
  
pneumonia/  
 pneumonia\_final/  
 Copy\_of\_train\_pneumonia\_model.ipynb  
 requirements.txt  
 Streamlit\_deploy\_steps.txt  
 streamlit\_inference.py  
 train\_pneumonia.py  
 data/  
 healthver\_dev.csv  
 healthver\_test.csv  
 healthver\_train.csv

chest\_xray/

train

test

val   
 saved\_trained\_model/  
 pneumonia\_log\_reg.pkl  
 pneumonia\_xgb.pkl

## 8. Project Structure (Github)

Pneumonia(your github file name )/

Requirements.txt

streamlit\_inference.py

## 9. Notes

- Ensure you have at least 32GB VRAM for faster training.  
- Training will also work on CPU but will be slower.  
- You can upload this project to Google Colab if you don’t have a higher RAM.