

DEEPHEALTH

Padchest pipeline using ECVL and EDDL in C++

PRHLT Group

International Workshop II 20/5/2020

Problem description

- Classification task to detect cases of pneumonia from x-ray images
- 4 classes: N, I, NI and C
- Problem reduced to 2 classes: C vs [N, NI]

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825111.

Dataset preparation and preprocessing

- ECVL dataset generator for classification
  - Prepare the dataset structure
  - Create the .yml with the generator
- Preprocessing:
  - Resize to (256, 256)
  - Rotation [-10, 10]
  - Divide by 255

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825111.

Model and training

- VGG16
- Adam optimizer (lr = 0.0001)
- Cross entropy loss
- Model checkpoint stored in ONNX

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825111.



DEEPHEALTH

Padchest pipeline using ECVL and EDDL in C++

PRHLT Group

International Workshop II 20/5/2020