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Medical Image Analyzer Project Report

https://github.com/KyeongsupChoi/MIA

Started Jan 7th, Invested approximately 90 hours

Data

https://github.com/BIMCV-CSUSP/BIMCV-COVID-19

- CR, DX, CT images

- 23521 files (152GB)

- Data Columns ImageID, StudyDate_DICOM, StudyID, PatientID, PatientBirth, PatientSex_DICOM, ViewPosition_DICOM, Projection, MethodProjection, Pediatric, Modality_DICOM, Manufacturer_DICOM, PhotometricInterpretation_DICOM, PixelRepresentation_DICOM, PixelAspectRatio_DICOM, SpatialResolution_DICOM, Labels, group, Partition, Subject_occurrences, Partition_occurrences

Model Training

- Training Set: 200 pneumonia 200 normal
- Tensorflow Keras -Resnet50
- batch_size=32, epochs=10,

Model Evaluation

- Validation loss = 0.59
- Accuracy = 72.5%

Future Development

- Proper EDA
- Add columns