

Radiomics for COVID-19 prognosis

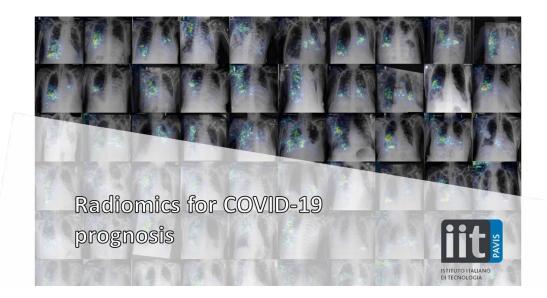
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1. PROJECT DETAILS

Radiomics for COVID-19 prognosis is an *open-source* project for the early diagnosis of COVID-19 – related pneumonia and for the automatic prediction from chest X-ray images of each patient of the most likely clinical outcome. The software is intended as a support for clinicians during the triage phase, as patients forecasted with a high risk of complications can be immediately subjected to personalized treatment. This will also allow for a more efficient allocation of resources.

The software is based on deep-learning models developed for image classification, which have been improved to take into account different information types, such as the features extracted by radiomic tools and from the patient medical records.

The software can be freely used for non-commercial purposes.

All the code is open-source and will be made available at:

https://github.com/IIT-PAVIS/radiomics4covid19

1.1 DISCLAIMER

All information and contents provided by AI for COVID-19 are to be intended only as informative. No healthcare decision can be partly or completely based on data provided by an application without the involvement of specialized healthcare providers.

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2. Workflow

- Acquisition of clinical data and chest x-ray
- Recognition of COVID-19 related pneumonia
- Regions of interest segmentation
- Extraction of radiomic features
- Prognosis estimation

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