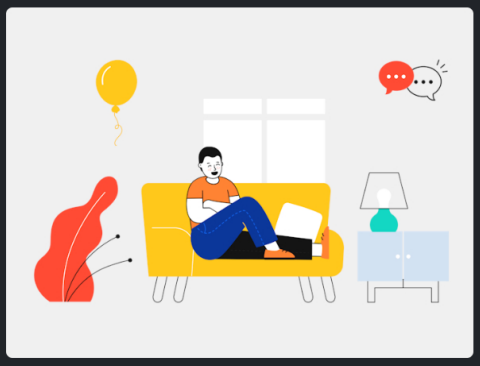
CVM Assessment using an Innovative AI-Based Imaging Analysis System

Cervical Vertebral Maturation (CVM) Assessment using an Innovative Artificial Intelligence (AI)-Based Imaging Analysis System

Get Started Learn More



A trusted way to start CVM assessment.

Published Manuscript

Balaha et al. published a manuscript in the Biomedical Signal Processing and Control journal, titled Cervical Vertebral Maturation Assessment using an Innovative Artificial Intelligence-Based Imaging Analysis System. The manuscript is available online and can be accessed through the provided link. Click to Open the Published Manuscript

Filed Patent

Balaha et al. filed a patent on December 18th, 2023, under the number 63/611,763. The patent is currently in the Filed status, protecting our innovations in AI, medical imaging, and deep learning, as part of our ongoing efforts to advance medical diagnostics and predictive analytics. Click to Open the IP (Intellectual Property) Information

System Phases

The system consists of several phases, each of which is designed to facilitate the CVM assessment process.

First Phase

Preprocessing Phase

In this phase, you can load the images and masks from the data folder. The data folder should contain both images and masks within the same directory. Each folder (images and masks) must include subfolders for the classes (e.g., Stage 1, Stage 2, Stage 3), and the corresponding files must have matching names. The images should be placed in the Original folder, while the masks should be in the Masks folder.

Second Phase

Features Extraction Phase

In this phase, you can extract the features from the images and masks. The extracted features will be saved on the server and can be used for further analysis.

Third Phase

Classification Phase

In this phase, you can perform the classification of the extracted features. The classification will be based on the extracted features and the selected model.

Results Navigation

You can navigate through the results of the system to explore the extracted features and the classification results.

Navigation

Extracted Features Navigation

You can navigate through the extracted features.

Navigation

Classification Results Navigation

You can navigate through the classification results.

System Inference

You can perform the inference phase to classify the image based on the extracted features and the selected model.

Prediction

Inference Phase

In this phase, you can perform the inference phase. In it, you can upload an image and the corresponding mask to classify the image based on the extracted features and the selected model.