ABSTRACT

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CONTENT-BASED IMAGE RETRIEVAL APPLICATION USING CONVOLUTIONAL NEURAL NETWORK METHOD FOR CAR TYPE RECOGNITION

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(xiii + 51 + Attachments)

The current text-based image search technique cannot be used to represent the image you are looking for in an image database, so image search results are often obtained that do not match what you are looking for and you must know the right keywords according to the image file name to obtain the image, which are desired. Content Based Image Retrieval (CBIR) is a method used to search digital images in an image database that is applied to several search engines such as Google and Yandex. The Content Based Image Retrieval (CBIR) application is made to recognize the entered car image so that it can be classified and the results can make the user know the type of car. This application was built by applying a combination of Content Based Image Retrieval (CBIR) and Convolutional Neural Network (CNN) methods that can be run on Desktop devices. The research method is carried out through the needs analysis stage, the design stage, the implementation stage and the trial stage. The application is built using Visual Studio Code and Python version 3.8.2. The test results with the Blackbox Testing method show the application runs well in testing, can perform the feature extraction process and display similar images based on query images.

Bibliography (2004-2021)